

This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`



The Journal of the Anthropological Institute of Great Britain and Ireland

Anthropological Institute of Great Britain and Ireland, JSTOR (Organization)

Digitized by Google

Sci 3090.29



Harvard College Library

FROM THE BEQUEST OF

JAMES WALKER, D.D., LL.D.

(Class of 1814)

FORMER PRESIDENT OF HARVARD COLLEGE

"Preference being given to works in the Intellectual and Moral Sciences."

2 Jan. – 20 Oct. 1900

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

Look out for Change
& Sign -

Moved

THE JOURNAL

OF THE

ANTHROPOLOGICAL INSTITUTE

OF

GREAT BRITAIN AND IRELAND.

VOL. XXIX (NEW SERIES, VOL. II).

LONDON:
PUBLISHED FOR
The Anthropological Institute of Great Britain and Ireland.
BY
KEGAN PAUL, TRENCH, TRÜBNER & CO.,
CHARING CROSS ROAD.

All Rights Reserved.

1899.

Digitized by Google

Sci 3090.29

923
3

Walker fund.

NOTICE.

To facilitate reference to the contents of this *Journal*, and to make it a more convenient record of the work of the Institute, the Council has authorised the following amendment of its form :—

Each volume of the *Journal* will henceforth contain the papers presented to the Institute between January and December of the calendar year; and the President's Address, delivered at the Annual Meeting in January, will form the introduction to each volume.

Consequently the latter part of Vol. XXIX (= Vol. II of the new royal octavo series) contains only those papers which were presented before the end of 1899; while Vol. XXX (= Vol. III of the new series) will contain those which are presented between January and December, 1900; and will open with the President's Address delivered in January, 1900.

For convenience of reference, also, greater prominence will be given to the number of a volume in continuation of the old series, than to its number in the new (royal octavo) series. Thus the current volume is described as Vol. XXIX (= New Series, Vol. II).

Digitized by Google

CONTENTS.

		PAGE
I.	Swatis and Afridis. By Colonel Sir T. H. Holdich, K.C.I.E., C.B.	2
II.	The Arab Tribes of our Indian Frontier. By Colonel Sir T. H. Holdich, K.C.I.E., C.B.	10
III.	The Secret Societies of West Africa. By H. P. Fitzgerald Marriott (Abstract)	21
IV.	Mitla: An Archæological Study of the Ancient Ruins and Remains in that Pueblo. By William Corner	29
V.	Ju-Ju Laws and Customs in the Niger Delta. By M. Le Comte C. N. de Cardi	51
VI.	Ethnographical Notes on the Fang. By Albert L. Bennett, M.D., F.E.S.	66
VII.	Beginnings of Currency. By Colonel R. C. Temple, C.I.E. ...	99
VIII.	Prehistoric Man in the Neighbourhood of the Kent and Surrey Border: Neolithic Age. By George Clinch, F.G.S.	124
IX.	On the Mediæval Population of Bristol. By Dr. Beddoe, LL.D., F.R.S.	142
X.	Note on a Skull from Syria. By W. L. H. Duckworth, M.A., Fellow of Jesus College, Cambridge	145
XI.	Some Australian Tree Carvings. By Herbert Perkins	152
XII.	Dialect Changes in the Polynesian Languages. By Rev. Samuel Ella	154
XIII.	Notes on the Ethnology of Tribes met with during Progress of the Juba Expedition of 1897–99. By Lieut.-Colonel J. R. L. Macdonald, R.E.	226
XIV.	Notes on the Masai Section of Lieut.-Colonel Macdonald's Vocabulary. By Mrs. S. L. Hinde	248
XV.	Notes on the Swahili Section of Lieut.-Colonel Macdonald's Vocabulary. By Miss M. E. Woodward	250
XVI.	The Nature of the Arab Ǧinn, illustrated by the Present Beliefs of the People of Morocco. By Edward Westermarck, Ph.D. ...	252
XVII.	Primitive Rites of Disposal of the Dead, with Special Reference to India. By W. Crooke, B.A.	271
XVIII.	Sequences in Prehistoric Remains. By Professor W. M. Flinders Petrie	295
XIX.	On the Discovery of *Neritina Fluviatilis* with a Pleistocene Fauna and Worked Flints in High Terrace Gravels of the Thames Valley. By H. Stopes	302

Digitized by Google

ANTHROPOLOGICAL REVIEWS AND MISCELLANEA.

PAGE

Notes on the Languages of the South Andaman Group of Tribes. By M. V. Portman 181
The Dolmens and Burial Mounds in Japan. By Wm. Gowland, F.S.A. ... 183
The Dolmens of Japan and their Builders. By Wm. Gowland, F.S.A. ... 183
Ethnology, in two parts. By A. H. Keane, F.R.G.S. 184
Der Periplus des Hanno. By Dr. Karl Emil Illing 185
Bird Gods. By Charles de Kay 186
Authority and Archæology, Sacred and Profane. Edited by D. G. Hogarth ... 186
The Kingdom of the Barotsi, Upper Zambesi. By A. D. Miall 188
The Races of Europe. By William Z. Ripley, Ph.D. 188
The Cult of Othin. By H. M. Chadwick 189
The Negritos. By A. B. Meyer, M.D. 191
The Temple of Mut in Asher. By Miss M. Benson and Miss J. Gourlay ... 191
The Philippine Islands. By John Foreman, F.R.G.S. 191
Among the Wild Ngoni. By Dr. W. A. Elmslie 191
Vocabulary of the Gualluma tribe. By E. Clement 192
Centralblatt für Anthropologie, Ethnologie und Urgeschichte. Edited by Dr. E. Buschan 196
Eaglehawk and Crow. By John Mathew 197
Notes and Queries on Anthropology. Edited by Dr. J. G. Garson and C. H. Read 197
Anthropology at the British Association. Dover Meeting: September 13th to 20th, 1899. (With Plate XXVIII) 198
Additions to the Library of the Anthropological Institute since July 1st, 1899 224
New Zealand Kotahas or Whip Slings, for Throwing Darts. (With Plate XXXIV) 304
Note on a Carved Canoe Head from New Zealand. (With Plate XXXV, 1) ... 305
Note on a Stone Battle-axe from New Zealand. (With Plate XXXV, 2) ... 305
Note on the Roman Origin of a Mediæval Charm 306
Prehistoric Chronology. By Professor Oscar Montelius 308
On the Judicial Oaths used on the Gold Coast 310
Notes on the Congress of the German and Viennese Anthropological Societies held at Lindau from the 4th–7th of September, 1899 314
The Huxley Memorial Statue in the Natural History Museum 316
Science et Foi. l'Anthropologie et la Science Sociale. Par Paul Topinard ... 317
Mission en Cappadoce 1893–1894. Par Ernest Chantre 320
Anthropometria. By Rudulfo Livi 324
Statistical Methods: With Special Reference to Biological Variation. By C. B. Davenport, Ph.D. 326
The Oneida Community. By Allan Estlake 327
Ancient Pagan Tombs and Christian Cemeteries in the Islands of Malta. By Dr. A. A. Caruana. The Royal Public Library of Malta. By the same ... 329
The Harmonic Structure of Indian Music. By John Comfort Fillmore ... 330
Text Book of Palæontology. By Karl A. von Zittel 331
The Cephalic Index. By Dr. Franz Boaz 332

Digitized by Google

PAGE

A Study of the Normal Tibia. By ALES HRDLIČKA 332
On some Flint Implements, found in the Glacial deposits of Cheshire and North Wales. By JOSEPH LOMAS, F.G.S. 333
Explorations in Patagonia. By Dr. F. P. MORENO 334
Vinland and its Ruins. By CORNELIA HORSFORD 334
Hawaii Nei. By MABEL C. CRAFT 335
A Dictionary of the Pathan Tribes of the North-West Frontier of India ... 335
On the Orientation of Temples. By F. C. PENROSE, M.A., F.R.S. 336
Reproductions of Nahua Manuscripts. By FRANCISCO DEL PASO Y TRONCOSO ... 337
Tangweera: Life and Adventures among Gentle Savages. By C. NAPIER BELL, M.Inst.C.E. 339
The Natural History of the Musical Bow. By HENRY BALFOUR, M.A. 340
International Congress of Prehistoric Archæology and Anthropology 342
International Congress on the History of Religion 344

ILLUSTRATIONS.

PLATES.

to face page

I to VII. Mitla: Ruins and Remains 29
VIII. Objects from the Collection of Sir John Smalman-Smith 51
IX. Objects from the Collection of the Comte de Cardi 51
X. Slave Driver and Slaves, Sherbro 64
XI. The Bundu Devil Dress 64
XII. Yenketti Swinging Bridge, Sherbro 64
XIII. Native Musicians, Sherbro 64
XIV. 1 and 2, Ngi masks used in the Fang Secret Society; 3, 4, Fang Idols; 5, Wooden dogbell; 6, Ngi collar; 7, Sacrifice Knife *frontispiece*
XV. Fang Men. Fang House 66
XVI. Fang Women. Fang Youths 66
XVII. Fang Dance. Abeng or Palaver House 66
XVIII to XXI. Illustrations of the Beginning of Currency 118
XXII and XXIII. Neolithic Implements found in the Neighbourhood of the Kent and Surrey Border 124
XXIV. A Skull from Syria 145
XXV and XXVI. Tree Carvings, New South Wales 152
XXVII. The Grave of a Native of Australia 152
XXVIII. Sources of the Alphabet... 204
XXIX. } Maps illustrating the results of the Juba Expedition 226
XXX. }
XXXI. Types of Pottery, illustrating the System of Sequence Dating ... 295
XXXII. The Genealogies of some forms of Pottery, illustrating the System of Sequence Dating 295
XXXIII. Flint Implements and Copper Tools, illustrating the System of Sequence Dating 295
XXXIV. New Zealand Kotahas or Whip-Slings 304
XXXV. 1. Figure-head of a War Canoe, New Zealand 305
2. A Chief's Implements of War ("Toki"), New Zealand 305

Digitized by Google

BLOCKS. *to face page*

Mitla:—
Fig. 1. Groups Nos. 1 to 7. Plans, ruins, etc. 32
Fig. 2. (After Dr. Seler) 34
Fig. 3. Surface shapes of the Raised Stone 36
Figs. 4, 5, 6, 7. (After Mr. W. H. Holmes) 37
Fig. 8. The Lintel 39
Fig. 9. A combination of beams, rods, and light masonry 41
Fig. 10. The Fort, etc.... 45
Prehistoric Man in the neighbourhood of the Kent and Surrey border:—
Fig. 1. Plan and Section of Hut-Circle, Hayes Common, Kent 125
Fig. 2. Plan and Section of Hut-Circle, Hayes Common, Kent 126
Fig. 3. Conjectural Restoration of Neolithic Hut with External Fire, Hayes Common, Kent 134
Fig. 4. Section of Pit containing evidences of Fire, West Wickham Common, Kent 135
The Roman Origin of a Mediæval Charm 307
The Vatican Codex, 3773 (Nahua) 338

1. The Memorandum of Association vii
2. The Articles ix
3. The List of Fellows xv

Digitized by Google

Memorandum of Association.

1. The name of the Association is the "Anthropological Institute of Great Britain and Ireland."

2. The registered office of the Association will be situate in England.

3. The objects for which the Association is established are :—

(1) The Promotion of the Study of the Science of Man.

(2) The doing of all such other lawful things as are incidental or conducive to the attainment of the above object.

4. The income and property of the Association, whencesoever derived, shall be applied solely towards the promotion of the objects of the Association as set forth in this Memorandum of Association; and no portion thereof shall be paid or transferred, directly or indirectly, by way of dividend, or bonus, or otherwise howsoever, by way of profit, to the Members of the Association. Provided that nothing herein shall prevent the payment in good faith of remuneration to any officers or servants of the Association, or to any Member of the Association, or other person, in return for any services actually rendered to the Association.

5. The fourth paragraph of this Memorandum is a condition on which a licence is granted by the Board of Trade to the Association in pursuance of Section 23 of the Companies' Act, 1867.

6. If any member of the Association pays or receives any dividend, bonus, or other profit, in contravention of the terms of the fourth paragraph of this Memorandum, his liability shall be unlimited.

7. Every Member of the Association undertakes to contribute to the assets of the Association, in the event of the same being wound up during the time that he is a member, or within one year afterwards, for the payment of the debts and liabilities of the Association contracted before the time at which he ceases to be a member, and of the costs, charges, and expenses of winding up the same, and for the adjustment of the rights of the contributories amongst themselves, such amount as may be required, not exceeding twenty shillings, or, in case of his liability becoming unlimited, such other amount as may be required in pursuance of the last preceding paragraph of this Memorandum.

Digitized by Google

8. If upon the winding up or dissolution of the Association there remains, after the satisfaction of all its debts and liabilities, any property whatsoever, the same shall not be paid to or distributed among the Members of the Association, but shall be given or transferred to some other institution or institutions, having objects similar to the objects of the Association, to be determined by the Members of the Association at or before the time of dissolution, or in default thereof by such Judge of the High Court of Justice as may have or acquire jurisdiction in the matter.

9. True accounts shall be kept of the sums of money received and expended by the Association, and the matter in respect of which such receipt and expenditure takes place, and of the property, credits, and liabilities of the Association; and, subject to any reasonable restrictions as to the time and manner of inspecting the same that may be imposed in accordance with the regulations of the Association for the time being, shall be open to the inspection of the Members. Once at least in every year the accounts of the Association shall be examined, and the correctness of the balance sheet ascertained by one or more properly qualified Auditor or Auditors.

Digitized by Google

Articles of Association.

1. For the purpose of registration the number of the Members of the Institute is declared not to exceed 600.

2. These Articles shall be construed with reference to the provisions of the Companies' Acts, and terms used in these Articles shall be taken as having the same respective meanings as they have when used in those Acts.

3. The Institute is established for the purposes expressed in the Memorandum of Association.

QUALIFICATION OF MEMBERS.

Nomination of Members.

4. Every person desirous of admission to the Institute as a Member shall be proposed and recommended agreeably to such Form as the Council may appoint from time to time; which Form must be subscribed by at least two Members, one of whom shall certify his personal knowledge of such Candidate.

Election of Members.

5. The Council shall elect by a show of hands, or by ballot, if any Member demand it. The voting shall take place, unless the Council shall otherwise direct, at the next Council meeting after that on which the Candidate is proposed, and no person shall be considered as elected unless he have three-fourths of the votes in his favour.

6. Every person so elected shall sign an undertaking to abide by the Rules of the Institute, in such form as the Council may direct.

RETIREMENT OF MEMBERS.

Retiring of Members.

7. Any Member may, on payment of all arrears of his Annual Contribution, withdraw from the Institute by signifying his wish to do so by letter, addressed to the Secretary. Such Member shall, however, be liable to the Contribution of the year in which he signifies his wish to withdraw; and shall also continue liable for the Annual Contribution until he shall have returned all books, or other property, borrowed by him of the Institute; or shall have made full compensation for the same, if lost, or not forthcoming.

Digitized by Google

RIGHTS AND CONTRIBUTIONS OF MEMBERS.

Privileges of Members.

8. The Members have the right to be present, to state their opinion, and to vote at all General Meetings; to propose Candidates for admission into the Institute; to have transmitted to them the Journal of the Institute; and, under such limitations as the Council may deem expedient, to have personal access to the Library and all other public rooms in the occupation of the Institute, and to borrow books, maps, plates, drawings, or specimens, belonging to the Institute.

9. Any Member is eligible to be a Member of the Council or Officer of the Institute.

Contributions of Members.

10. Each Member shall pay an Annual Contribution of two guineas, which may at any time be compounded for by a payment of £21.

11. The Annual Contributions shall become due upon election (unless such election takes place in the month of November or December) and in advance on the first day of January in each year afterwards.

12. If the annual contribution of a Member be more than one year in arrear, the Treasurer shall report such default to the Council, and the Council shall use its discretion in erasing the name of the defaulter from the List of Members; and in the discretion of the Council he shall not be allowed to attend the Meetings of the Institute, or to receive any of its publications, or to enjoy any of its privileges and advantages, until his arrears be paid. At the expiration of six months the name of the defaulter may be suspended in the Meeting Room.

Expulsion of Members.

13. Should there appear cause, in the opinion of the Council, for the expulsion from the Institute of any Member, a Special General Meeting shall be called by the Council for that purpose, notice of which shall be given to such Member; and if three-fourths of those voting agree, by ballot, that such Member be expelled, the President, or other Member in the Chair, shall declare the same accordingly, whereupon the name of the person expelled shall be erased from the List of Members.

OFFICERS AND COUNCIL.

Constitution.

14. The Institute shall have a President, Vice-Presidents, a Secretary, and a Treasurer.

Election of Honorary Members and Corresponding Members.

15. Persons eminent in Anthropology, abroad and in the United Kingdom, may be associated with the Institute under the titles of "Honorary Members" and "Corresponding Members"; they shall be elected by the Council, under the same conditions as laid down for Members, but shall not be liable to any annual or other contribution, and shall not be deemed to be "Members" within the meaning of the Memorandum of Association. Honorary Members shall have the same rights as Members, with the exception of that of voting at General Meetings.

Digitized by Google

16. The Government of the Institute shall be vested in the President, the Vice-Presidents, Secretary, and Treasurer, who shall be *ex-officio* Members of Council, and twenty ordinary Members of Council to be elected as hereinafter directed. All past Presidents of the Anthropological Institute, and of the pre-existing Ethnological and Anthropological Societies, while still Members of the Institute, shall be Vice-Presidents *ex officio;* and there shall be three other elected Vice-Presidents. **Government.**

17. The President, three Vice-Presidents, Secretary, Treasurer, and ordinary Members of the Council shall be elected by ballot at the Annual General Meeting; and three at least of the ordinary Councillors and one of the elected Vice-Presidents shall retire from office annually, and not be eligible for re-election for the space of one year; the retiring Members to be selected by the Council. **Election of Council.**

18. If, in the interval between two Annual Meetings, any vacancy in the Council occur, the Council may appoint some Member of the Institute to fill such vacancy.

MANAGEMENT OF INSTITUTE AND POWER AND DUTIES OF COUNCIL.

19. The Council shall meet on such days as they appoint, and a book shall be kept in which the attendance of each Member shall be certified by his own signature at the time of his entering the Council-room. The President, or any three Members of the Council, may at any time call a special Meeting of the Council, to which the whole Council shall be summoned. **Council Meetings.**

20. In all Meetings of the Council five shall be a quorum; all questions shall be decided by vote, unless a ballot be demanded; and a decision of the majority shall be considered as the decision of the meeting; the Chairman shall have, in case of an equality, the casting vote.

21. The Council shall be empowered to remit or abate subscriptions in cases of Members distinguished for their services to Anthropological Science, but the total number of such non-contributing Members shall never exceed ten.

22. The Council shall present and cause to be read at the Annual General Meeting a Report of the accounts and of the state of the affairs of the Institute for the preceding year. The Council shall act for the Institute in any matter which is not specified in these articles. The Council shall prepare the House-list of retiring Members of Council, and also of Candidates to be recommended at the Annual General Meeting to fill up the vacancies. The Council shall have authority from time to time to make and alter by-laws for the management of the Institute, and the regulation its officers, meetings, and proceedings; but so that no by-law is contrary to any of these articles. **Duties of Council.**

Digitized by Google

MEETINGS.

Annual General Meetings.

23. A General Meeting shall be held annually in January, to receive the Report of the Council on the state of the Institute, and to deliberate thereon; and to discuss and determine such matters as may be brought forward by the Council relative to the affairs of the Institute. Also, to elect the Officers for the ensuing year. The Chairman shall cause to be distributed a sufficient number of balloting-lists, in such form as the Council may appoint; and he shall appoint two or more Scrutineers, from among the Members present, to superintend the ballot during its progress, and to report the result to the Meeting; the ballot shall close at the expiration of one hour.

Special General Meetings.

24. The Council shall call a Special General Meeting of the Institute when it seems to them necessary, or when required by the requisition of any ten Members so to do.

25. Every such requisition, duly signed by ten or more Members, must specify, in the form of a resolution, the object intended to be submitted to the Meeting.

26. The notice of the Special Meeting, or the requisition and the resolution, as the case may be, shall be suspended in the Institute's rooms for two weeks, and a copy sent to all Members resident in the United Kingdom, whose addresses are known, one week previous to such Meeting; and at the Meeting the discussion shall be confined to the object specified in the resolution, or, in the absence of a requisition, then in the notice convening such Meeting.

Ordinary General Meetings.

27. The Ordinary Meetings of the Institute shall be held on such days as the Council shall appoint; and a printed list of such Meetings shall be sent to each Member.

Duties of President.

28. The President, or in his absence one of the Vice-Presidents, and in their absence a Member to be chosen by the Meeting, shall take the chair at every Meeting of the Institute or of the Council.

Original Papers.

29. Every Paper which may be presented to the Institute shall, in consequence of such presentation, be considered as the property of the Institute, unless there shall have been any previous engagement with its author to the contrary; and the Council may publish the same in any way and at any time that they may think proper. But, should the Council refuse or neglect within one year to publish such Paper, the author shall have a right to publish it upon his own responsibility. No other person, however, shall publish any Paper belonging to the Institute without the previous consent of the Council.

30. At an Ordinary Meeting no question relating to the Rules or Management of the Institute shall be introduced.

Digitized by Google

31. The accounts of the Institute shall be annually audited by two Members, proposed by the President, and approved by the Ordinary Meeting held next before the Annual General Meeting.

INTERPRETATION CLAUSE.

32. In these articles words importing the masculine gender shall include the feminine, and words importing the singular number the plural, except where the matter or context shall exclude such construction; and when an office in the Institute is held by more than one person either of such persons may do anything appertaining to such office.

33. A notice may be served by the Institute upon any Member either personally or by sending it through the post in a prepaid letter addressed to such Member at his last known place of abode.

34. Any notice, if served by post, shall be deemed to have been served at the time when the letter containing the same would be delivered in the ordinary course of the post; and in proving such service it shall be sufficient to prove that the letter containing the notice was properly addressed and put into the post-office.

Digitized by Google

Digitized by Google

LIST OF THE FELLOWS

OF THE

ANTHROPOLOGICAL INSTITUTE

OF

GREAT BRITAIN AND IRELAND.

It is particularly requested that Fellows will give notice to the Secretary of the Society, 3, Hanover Square, W., of any error in their addresses or descriptions, in order that it may be immediately corrected in the books.

*The names with * attached to them are those of Fellows who have compounded for the Annual Subscriptions.*

¶ *These Fellows have contributed Papers to the Institute.*

§ *These Fellows are Members of Council.*

HONORARY FELLOWS.

Anuchin, Professor. Imperial University, Moscow.

Bastian, Professor Adolf. Director of the Ethnological Museum, Berlin. (¶)

Benedikt, Prof. University, Vienna, Austria.

Bertillon, Mons. Alphonse. Chef du Service Anthropométrique à la Préfecture de Police, Paris.

Bonaparte, H. H. Prince Roland. 10 Avenue d'Iena, Paris.

Cartailhac, M. Emile. Toulouse, France.

Chantre, M. Ernest. Lyons, France.

Collignon, Dr. René. 6 Rue de la Marine, Cherbourg, Manche, France.

Dareste, Prof. Camille. 37 Rue de Fleurus, Paris.

Dawson, Geo. Mercer, Esq., C.M.G., LL.D., F.R.S. Director of Geological Survey, Ottawa, Canada.

Deniker, Dr. J. 2 Rue de Buffon, Paris.

Dubois, Prof. Eugene. 45 Zijlweg, Haarlem, Holland.

Dupont, Dr. E. 31 Rue Vautier, Brussels.

Fison, Rev. Lorimer. Essenden, Melbourne. (¶)

Gerland, Prof. University, Strasburg, Alsace.

Giglioli, Professor E. H. Zoological Museum, Florence, Italy.

Hamy, Dr. E. T. Muséum du Trocadero, Paris.

Heger, Dr. F. Royal Natural History Museum, Vienna.

Holmes, Prof. W. H. Field Columbian Museum, Chicago.

Jones, Professor T. Rupert, F.R.S. 17 Parsons Green, Fulham, S.W.

Kollmann, Professor J. University, Basle, Switzerland.

Lacassagne, Professor. Lyons, France.

Livi, Cavaliere Dr. Ridolfo. Capitano medico Ispettorato militare, Rome

Lombroso, Prof. University, Turin, Italy.

Manouvrier, Dr. L. L'École d' Anthropologie, Paris.

Digitized by Google

HONORARY FELLOWS—*continued.*

Mantegazza, Professor Paolo. Florence.
Martin, Prof. Rudolf. University of Zurich.
Mason, Professor Otis T. Smithsonian Institution, Washington, U.S.A.
Meyer, Dr. A. B. Director of the Royal Ethnographical Museum, Dresden. (¶)
Montelius, Dr. Oscar. Museum of Antiquaries, Stockholm. (¶)
Moreno, Dr. F. P. Buenos Ayres.
Müller, Professor F. Max. Oxford.
Nadaillac, Marquis de. 18 Rue Dupliot, Paris.
Nicolucci, Prof. Giustiniano. Isola di Sora, Italy.
Powell, The Hon. J. W. Bureau of Ethnology, Washington, U.S.A.
Putnam, Professor F. W. Harvard University, Cambridge, Massachusetts, U.S.A.
Ranke, Professor J. Munich, Bavaria.
Schmeltz, Dr. J. D. E. 69 Rapenburg, Leiden, Netherlands.
Sergi, Prof. G. Director of Royal University, Rome.
Spencer, Professor Baldwin. University, Melbourne.
Stirling, Dr. E. C., C.M.G., M.A., F.R.C.S. Director of South Australian Museum.
Stolpe, Dr. K. H. Royal Historical Museum, Stockholm.
Topinard, Dr. Paul. 105 Rue de Rennes, Paris. (¶)
Troncoso, Signor F. del Paso y. 61 Via Ricasoli, Florence, Italy.
Virchow, Professor Rudolph. Berlin.

CORRESPONDING FELLOWS.

Appleyard, Rev. W. The Vicarage, Batley Carr, Dewsbury.
Bonsdorff, Professor E. J. Kokisgard, Salo (Uskela), Finland.
Carr, Lucien, Esq. Peabody Museum, Cambridge, Mass., U.S.A.
Daa, Professor. Christiania, Norway.
Duhousset, Colonel Emile. 6 Rue de Fürstemberg, Paris.
His, Professor W. Leipzig.
Hoffman, Dr. W. J. Washington, D.C., U.S.A.
Howitt, Alfred W., Esq. Secretary for Mines, Department of Mines, Melbourne, Victoria, Australia.
Letourneau, Prof. L'École d'Anthropologie, Paris.
Oliver, Captain S. P. Moray House, Anglesey, Gosport, Hants. (¶)
Ricarde-Seaver, Major F. I. Athenæum Club, Pall Mall, S.W.
Ruge, Dr. Sophus. Circusstrasse, 20 Dresden.
Saunders, Trelawney W., Esq. 3 Elmfield on the Knowles, Newton Abbot, Devon.
Scherzer, Dr. Charles Chevalier de. 10 Via Roma, Genoa, Italy.
Steinhauer, Dr. Karl. Director Royal Museum, Stockholm.
Weisbach, Dr. Augustin. Währingerstrasse, 25, Vienna.
Wilson, T., Esq. Curator of Prehistoric Anthropology, Smithsonian Institution, Washington. (¶)

N.B.—The name of any Honorary or Corresponding Fellow whose address, or that of his agent, shall not be known for the space of two years shall be removed from the List, but may be restored again by the Council.

Digitized by Google

ORDINARY FELLOWS.

Year of Election.

1883 Abercromby, The Hon. John, 62 *Palmerston Place, Edinburgh.* (*)

1858 Adams, Wm., Esq., F.R.C.S., 7 *Loudoun Road, St. John's Wood, N.W.* (*)

1862 Amherst, of Hackney, The Right Hon. Lord, F.S.A., 8 *Grosvenor Square, W.; and Didlington Hall, Brandon.*

1865 Armstrong, The Right Hon. Lord, D.C.L., LL.D., F.R.S., 8 *Great George Street, S.W.; and Cragside, Rothbury, Northumberland.* (*)

1874 Atkinson, G. M., Esq., 28 *St. Oswald Road, West Brompton, S.W.* (¶§)

1894 Atkinson, J. J., Esq., *Post Office, Thio, New Caledonia.*

1863 Avebury, The Right Hon. Lord, F.R.S., 2 *St. James' Square, S.W.; High Elms, Beckenham, Kent.* (¶§*)

1895 Backhouse, W. A., Esq., *St. John's, Wolsingham, Darlington.* (*)

1888 Balfour, Henry, Esq., M.A., VICE-PRESIDENT, *Anthropological Department, Museum, Oxford;* 11 *Norham Gardens, Oxford.* (¶§)

1894 Barclay, Edwyn, Esq., *Urie Lodge, Ridgway, Wimbledon.*

1865 Barrett, Thomas Squire, Esq., F.Z.S., F.S.S., F.R.B.S., F.R.Hist.S., *Rose Cottage, Millfield Road, Appleton, Widnes.* (*)

1876 Barron, E. J., Esq., F.S.A., 10 *Endsleigh Street, Tavistock Square, W.C.* (*)

1865 Bartrum, J. Stothart, Esq., F.R.C.S., 13 *Gay Street, Bath.*

1882 Baye, Baron de, 58 *Avenue de la Grande Armée, Paris.* (*)

1884 Beaufort, W. Morris, Esq., F.R.G.S., 18 *Piccadilly, W.* (*§)

1854 Beddoe, John, Esq., M.D., F.R.S., F.R.C.P., Foreign Associate of the Anthropological Society of Paris; Corresponding Member of the Anthropological Society of Berlin; Hon. Member of the Anthropological Societies of Brussels and Washington; VICE-PRESIDENT, *The Chantry, Bradford-on-Avon, Wilts.* (¶§)

1899 Bennett, Albert L., Esq., M.D., F.E.S., 34 *Denison Buildings, 14th Street, Denver, Colorado, U.S.A.*

1899 Bennett, Mrs. G. Nevitt, 15 *Hanover Terrace, Regent's Park, N.W.*

1899 Berry, R. J. A., Esq., M.D., F.R.C.S., F.R.S., *Edinburgh School of Medicine; Royal College, Edinburgh;* 4 *Howard Place, Edinburgh.*

1896 Blackett, Spencer, Esq., *Paternoster House, Charing Cross Road.*

1896 Blundell, Herbert Weld, Esq., *Brooks's Club, S.W.*

1869 Bonwick, James, Esq., F.R.G.S., *Yarra Yarra, South Vale, Upper Norwood, S.E.* (¶)

1872 Bowly, Christopher, Esq., *Siddington House, Cirencester.*

1864 Brabrook, E. W., Esq., C.B., F.S.A., F.R.S.N.A. Copenhagen; Corr. Member of the Anthropological Society of Paris; Barrister-at-Law; VICE-PRESIDENT, 178 *Bedford Hill, Balham, S.W.;* 28 *Abingdon Street, S.W.* (*¶§)

Digitized by Google

Year of Election.

1865 Braby, F., Esq., F.G.S., *Bushey Lodge, Teddington.*

1900 Breton, Miss A. C., *c/o Wilts and Dorset Bank, Bath.*

1894 Breyer, Dr. H. G., Professor of Natural History, *Gymnasium Box, Pretoria, South Africa.*

1892 Brice, Arthur Montefiore, Esq., F.R.G.S., 1D *Hyde Park Mansions, W.* (¶)

1894 Brook, R. C., Esq., *Wolverhampton House, St. Helens.*

1889 Brown, J. Allen, Esq., F.G.S., 7 *Kent Gardens, Ealing.* (¶)

1864 Brown, James Roberts, Esq., F.R.G.S., F.R.S.N.A. Copenhagen, 44 *Tregunter Road, South Kensington, S.W.* (*)

1895 Brown, William, Esq., J.P., President Fowler Phrenological Institute, *Hazelwood, Wellingborough.*

1885 Browne, John, Esq., *Chertsey House, Parkhill Rise, Croydon, Surrey.*

1867 Bull, William, Esq., F.L.S., 536 *King's Road, Chelsea, S.W.*

1895 Burnard, Robert, Esq., 3 *Hillsborough, Mutley, Plymouth.*

1894 Bushe, Col. Charles Kendal, F.G.S., 19 *Cromwell Road, S. Kensington.*

1867 Busteed, W. J., Esq., M.D., Brigade-Surgeon, *c/o Messrs. Grindlay & Co.,* 55 *Parliament Street, S.W.* (*)

1891 Bute, The Most Hon. The Marquess of, K.T., *Cardiff Castle.*

1893 Caldecott, Percy, Esq., *Constitutional Club, Northumberland Avenue, S.W.*

1872 Cammiade, Gilbert Henry, Esq., *Madras.* (*)

1892 Campbell, C. W., Esq., H.B.M. Consular Service, *Shanghai, China.*

1865 Carey, Major-General W. D., R.A., 22 *Archers Road, Southampton.* (*)

1865 Cavafy, J., Esq., M.D., 10 *Fourth Avenue, Hove, Sussex.* (*)

1899 Christian, F. W., Esq.

1874 Church, W. Selby, Esq., M.D., President R.C.P., 130 *Harley Street, Cavendish Square, W.*

1877 Clapham, Crochley, Esq., M.D., *The Grange, Rotherham, Yorks.* (*¶)

1885 Clarke, C. F., Esq., M.R.C.S., 24 *Park Road, Plumstead.*

1875 Claudet, Frederic, Esq., F.C.S., 10 *Oak Hill, Frognal, Hampstead, N.W.*

1864 Clerk, Major-General H., R.A., F.R.S., *Mountfield,* 5 *Upper Maze Hill, St. Leonard's, Sussex.*

1895 Clodd, Edward, Esq., 19 *Carleton Road, Tufnell Park, N.*

1898 Codrington, Robert, Esq., F.R.G.S., *Government House, Fort Jameson, Rhodesia.*

1884 Coffin, Walter H., Esq., F.L.S., F.C.S., 94 *Cornwall Gardens, South Kensington, S.W.; and Villa Passaic, Kew, Surrey.*

1863 Collingwood, J. Frederick, Esq., F.G.S., Foreign Associate of the Anthropological Society of Paris, 5 *Irene Road, Parson's Green, S.W.* (*¶)

1888 Collyer, Henry C., Esq., *Breakhurst, Beddington, near Croydon.*

1896 Connolly, R. M., Esq., B.A., L.R.C.S. Edin., *Taiping, State of Perak.* (¶)

Digitized by Google

Year of Election.

1866 Cooper, Frederick, Esq. (*)
1895 Corner, Frank, Esq., M.R.C.S., *Manor House, Poplar, E.* (¶)
1861 Crawfurd, O. J., Esq., C.M.G., *Oporto.* (*)
1900 Crowfoot, J. W., Esq., B.A., *Mason University College, Birmingham.*
1893 Crombie, James Edward, Esq., *Inverdon, Aberdeen.*
1892 Crooke, William, Esq., *Langton House, Charlton Kings, Cheltenham.* (¶§)
1883 Cunningham, Professor D. J., M.D., D.C.L., F.R.S. L. and E., 43 *Fitz William Place, Dublin.* (¶)
1896 Cust, Miss M. E. V., F.R.G.S., M.R.A.S., 127 *Victoria Street, Westminster.*
1863 Cuthbert, J. R., Esq., *Chapel Street, Liverpool.* (*)
1860 Cutler, G., Esq. (*)
1875 Czarnikow, C., Esq., 29 *Mincing Lane, E.C.*

1892 Dallas, James, Esq., F.L.S., *Cantralees, Lympstone, Devon.* (¶)
1895 Dalton, Ormonde Maddock, Esq., M.A., F.S.A., *British Museum, Bloomsbury, W.C.* (§¶)
1885 Darwin, W. Erasmus, Esq., F.G.S., *Ridgemount, Basset, North Stoneham, Southampton.*
1893 Davies, Rev. T. Witton, B.A. (Lond.), Ph.D. (Leipzig), *Baptist College, Bangor, North Wales.* (*)
1869 Dawkins, W. Boyd, Esq., M.A., F.R.S., F.S.A., F.G.S., Professor of Geology and Palæontology in Victoria University, Owens College, Manchester *Woodhurst, Fallowfield, Manchester.* (¶)
1899 Duckworth, W. L. H., Esq., M.A., *Jesus College, Cambridge.*
1870 Duncan, Dr. David, Director of Public Instruction, *Madras.*
1885 Duncombe, Captain the Hon. Cecil, *The Grange, Nawton, Yorks.*

1862 Eastwood, J. W., Esq., M.D., *Dinsdale Park, Darlington.*
1893 Ebbels, Arthur, Esq., 6 *Lavender Gardens, Clapham Common, S.W.*
1890 Edwards, Stanley, Esq., F.Z.S., *Kidbrooke Lodge, Blackheath, S.E.*
1896 Elliott, R., Esq., 161 *Camberwell Road, S.E.*
1888 Ellis, H. Havelock, Esq., *Carbis Water, Lelant, Cornwall.*
1891 Evans, Arthur J., Esq., M.A., F.S.A., VICE-PRESIDENT, Keeper of the Ashmolean Museum, *Youlbury, Abingdon.* (¶§)
1863 Evans, Sir John, K.C.B., D.C.L., LL.D., F.R.S., V.P.S.A., F.L.S., F.G.S.; President of the Numismatic Society of London; VICE-PRESIDENT, *Nash Mills, Hemel Hempstead, Herts.* (¶§)
1887 Evans, Sebastian, Esq., LL.D., 15 *Waterloo Crescent, Dover.*

1896 Falconer, Thomas Wentworth, Esq., *Foxholes, Christchurch, Hants.*
1900 Farnell, Lewis R., Esq., M.A., *Exeter College, Oxford.*

Digitized by Google

Year of Election.

1880 Felkin, Robert William, Esq., M.D., F.R.G.S., 6 *Crouch Hall Road, Crouch End, London, N.* (§)

1897 Ffennell, Miss M. C., 172 *The Grove, Hammersmith, W.*

1883 Finzi, John, Esq., 53 *Hamilton Terrace, N.W.*

1866 Fischer, Robert, Esq., B.L., *Madura, Madras.* (*)

1883 Forbes, H. O., Esq., LL.D., Director of Museums, *The Museum, William Browne Street, Liverpool.* (§¶)

1875 Forlong, Major-General J. G. R., F.R.G.S., F.R.S.E., 11 *Douglas Crescent, Edinburgh.*

1889 Fraser, Professor A., M.B., 18 *Northbrook Road, Dublin.*

1885 Frazer, James G., Esq., M.A., *Trinity College, Cambridge.* (¶)

1871 Fry, Danby P., Esq., 166 *Haverstock Hill, N.W.*

1862 Galton, Francis, Esq., M.A., D.C.L., F.R.S., F.G.S., F.R.G.S.; VICE-PRESIDENT, 42 *Rutland Gate, S.W.* (¶§)

1861 Gardner, Professor E. V., *Tremont, 59 Florence Road, New Cross, S.E.*

1881 Garson, John George, Esq., M.D., Foreign Associate Anthropological Society of Paris; Corresponding Member Society for Anthropology, Ethnology and Primitive Hist. of Berlin; Corresponding Member of Anthropological Society of Moscow; Corresponding Member of Anthropological Society of Rome; Adviser and Instructor on the Metric System of Identification, Home Office, 122 *Harley Street, W.* (¶§)

1880 Gladstone, J. Hall, Esq., Ph.D., F.R.S., F.C.S., 17 *Pembridge Square, W.* (¶)

1896 Godden, Miss G. M., *Ridgfield, Wimbledon.* (¶)

1879 Godman, F. Du Cane, Esq., F.R.S., *South Lodge, Horsham.* (*)

1895 Gomme, G. L., Esq., F.S.A., 24 *Dorset Square, W.* (§¶)

1885 Gosselin, Hellier R. H., Esq., *Bengeo Hall, Hertford.*

1887 Gowland, W., Esq., F.S.A., F.C.S., 13 *Russell Road, Kensington, W.* (§*¶)

1894 Gray, John, Esq., B.Sc., 351 *Coldharbour Lane, Brixton, S.W.* (¶)

1888 Greatheed, William, Esq., 67 *Chancery Lane, W.C.*

1892 Green, Upfield, Esq., F.G.S., *Tenter Street, Moorfields, E.C.*

1899 Greg, Thos. Tylston, M.A., F.S.A., 7 *Campden Hill Square, Kensington, W.*

1899 Griffith, F. Llewellyn, *Riversvale, Ashton-under-Lyne.*

1889 Haddon, Alfred Cort, Esq., M.A., D.Sc., F.R.S., M.R.I.A., F.Z.S., Professor of Zoology in the Royal College of Science, Dublin, *Inisfail, Hills Road, Cambridge.* (¶§*)

1893 Hale, Charles George, Esq., *Ivy Hatch, Sevenoaks.*

1890 Hardy, Norman, Esq., 4 *Albert Studios, Albert Bridge Road, S.W.*

1884 Hargreaves, Miss H. M., 69 *Alexandra Road, Southport.*

1897 Hartland, E. S., Esq., F.S.A., *Highgarth, Gloucester.* (*§)

1866 Haserick, F. Augustus, Esq., 35 *Johann Georgen Allée, Dresden, Germany.* (*)

Digitized by Google

Year of Election.

1893 Haswell, George Handel, Esq., *Cornwall Works, Birmingham.*
1889 Haverfield, F., Esq., M.A., *Christ Church, Oxford.* (*)
1864 Healey, Edward C., Esq., *Wyphurst, Cranleigh, Guildford.*
1885 Heape, C., Esq., *Glebe House, Rochdale.*
1894 Helme, James, Esq., 8 *Lower Church Street, Lancaster.*
1886 Hervey, Hon. D. F. A., C.M.G., *The Elms, Aldeburgh.*
1863 Hewlett, Alfred, Esq., F.G.S., *Haseley Manor, Warwick.*
1895 Hickson, Prof. S. J., D.Sc., F.R.S., *Owens College, Manchester.* (*)
1899 Hobson, Mrs. M. A., 5 *Beaumont Crescent, West Kensington, W.*
1899 Holdich, Col. Sir T. Hungerford, R.E., K.C.I.E., C.B., 23 *Lansdowne Crescent, Notting Hill, W.* (¶§)
1887 Holländer, Bernard, Esq., M.D., M.R.C.S., 61 *Chancery Lane, W.C.*
1881 Holmes, T. V., Esq., F.G.S., 28 *Croom's Hill, Greenwich, S.E.* (¶§)
1888 Holt, R. B., Esq., 10 *Bedford Place, Russell Square, W.C.* (¶)
1876 Horniman, Frederick John, Esq., M.P., F.L.S., F.R.G.S., F.Z.S., F.S.A. Scot., 20 *Hyde Park Terrace, W.* (*)
1894 Horsley, Victor, Esq., F.R.S., F.R.C.S., 25 *Cavendish Square, W.*
1893 Hose, Charles, Esq., Resident of the Baram, *Sarawak.* (¶)
1891 Howarth, O. H., Esq., 209 *Gresham House, Old Broad Street, E.C.* (¶)
1889 Howden, Robert, Esq., M.A., M.B., F.R.S.E., Prof. of Anatomy, Durham University, 24 *Burdon Terrace, Newcastle-on-Tyne.*
1887 Howes, G. B., Esq., LL.D., F.R.S., F.L.S., *Royal College of Science, South Kensington, S.W.* (§)
1896 Howorth, Sir Henry H., K.C.I.E., M.P., F.R.S., F.S.A., 30 *Collingham Place, Earl's Court.* (¶§)
1879 Hügel, Baron A. von, 53 *Barton Road, Cambridge.* (§)
1885 Hurst, Walter, Esq., *The Grange, Tadcaster, Yorks.*
1898 Hutchinson, Rev. H. Neville, 37 *Vincent Square, S.W.*

1898 Iles, George, Esq., *Park Avenue Hotel, New York.* (*)

1900 Japp, Alex. H., Esq., LL.D., F.R.S.E., *National Liberal Club, Whitehall Place, S.W.*
1863 Jackson, Henry, Esq., Litt.D., M.A., *Trinity College, Cambridge.* (*)
1872 Jeaffreson, W. J., Esq., M.A., *Savage Club, Adelphi.* (*)
1869 Jeffery, F. J., Esq. (*)
1898 Jevons, Frank Byron, M.A., LL.D., Principal of Hatfield Hall, Durham.
1885 Johnston, Sir H. H., K.C.B., H.M. Special Commissioner, Uganda, *c/o Foreign Office, S.W.* (¶)

1879 Keane, A. H., Esq., B.A., Corresponding Member of the Italian Society of Anthropology, 79 *Broadhurst Gardens, South Hampstead, N.W.* (¶)

Digitized by Google

Year of Election.

1896 Keith, A., Esq., M.D., F.R.C.S., 40 *Leigh Road, Highbury Park, N.* (§¶)

1891 Kennedy, George A., Esq., 76 *Seedley Terrace, Pendleton, Manchester.*

1894 Kennedy, James, Esq., 14 *Frognal Lane, Finchley Road, N.W.*

1865 Kincaid, Major-General W., *Messrs. Alexander Fletcher & Co., St. Helen's Place, Bishopsgate Street, E.C.*

1891 Kitts, Eustace John, Esq., *Gorakhpur, N.W.P.* (*)

1895 Klein, Rev. L. De Beaumont, D.Sc., *Montford House, Alexandra Drive, Liverpool.*

1881 Knowles, W. J., Esq., *Floxton Place, Ballymena, Co. Antrim.* (¶)

1893 Ko, Taw Sein, Esq., 2 *Latter Street, Rangoon, Burmah.*

1894 Krauss, J. S., Esq., B.A., *Smedley's Establishment, Matlock.*

1863 La Barte, Rev. W. W., M.A., 9 *Creffield Road, Colchester.*

1895 Lancaster, G. G., Esq., *Marton Hall, Baschurch, Shrewsbury.* (*)

1899 Lang, Andrew, Esq., 1 *Marsloes Road, Kensington, W.*

1888 Law, Walter W., Esq., *Scarborough, New York, U.S.A.* (*)

1885 Lawrence, E., Esq., 56 *Blenheim Road, Blackhorse Road, Walthamstow, Essex.* (*)

1899 Lawrence, George Fabeau, Esq., 7 *West Hill, Wandsworth, S.W.*

1899 Lee, Mrs. Kate, 8 *Victoria Road, Kensington, W.*

1895 Leslie, Lt.-Col. F. S., R.E., Commanding Royal Engineers, Devon Sub-District, Exeter, *War Office, S.W.*

1898 Levick, T. H. Carlton, Esq., 148 *Palmerston Buildings, Bishopsgate Street Within, E.C.*

1866 Lewis, A. L., Esq., F.C.A., TREASURER, 54 *Highbury Hill, N.* (*¶§)

1893 Longman, Charles James, Esq., M.A., 27 *Norfolk Square, W.* (*)

1891 Low, Sir Hugh, G.C.M.G., F.L.S., F.G.S., 23 *De Vere Gardens, Kensington, W.* (§)

1884 Macalister, Alexander, Esq., M.D., F.R.S., Professor of Anatomy in the University of Cambridge, VICE-PRESIDENT, *Torrisdale, Cambridge.* (¶§)

1900 McDougall, William, Esq., *St. John's College, Cambridge.*

1899 MacIver, David, Esq., M.A., *Wolverton House, Clifton, near Bristol.* (¶)

1899 Maclagan, R. C., Esq., M.D., 5 *Coates Crescent, Edinburgh.*

1885 MacRitchie, David, Esq., F.S.A. Scot., 4 *Archibald Place, Edinburgh.* (¶)

1855 Malcolm, W. E., Esq., M.A., *Burnfoot, Langholm, Dumfries.* (*)

1881 Man, E. H., Esq., C.I.E., 2 *Palace Road, Kingston-on-Thames.* (¶)

1892 March, H. Colley, Esq., M.D., *Portesham, Dorchester.* (*¶)

1896 Marett, R. R., Esq., *Exeter College, Oxford.* (*)

1868 Martin, Richard Biddulph, Esq., M.P., M.A., F.R.G.S., 10 *Hill Street, W.* (*¶§)

1894 Maudslay, A. P., Esq., F.R.G.S., VICE-PRESIDENT, 32 *Montpelier Square, Knightsbridge, S.W.* (§¶)

Digitized by Google

Year of Election.

1881 Meldola, Raphael, Esq., F.R.S., F.R.A.S., F.C.S., F.I.C., Professor of Chemistry in the Finsbury Technical College, City and Guilds of London Institute, 6 *Brunswick Square, W.C.* (*¶)

1877 Messer, A. B., Esq., M.D., Inspector-General of Hospitals and Fleet, *Kinglune, Carlisle Road, Eastbourne.* (*¶)

1885 Mocatta, F. D., Esq., 9 *Connaught Place, W.* (*)

1883 Moloney, H.E. Sir C. Alfred, K.C.M.G., F.R.G.S., Governor of the Windward Islands, *Government House, St. George's, Grenada, West Indies.*

1870 Morrison, Walter, Esq., M.A., M.P., 77 *Cromwell Road, S.W.* (*)

1894 Mortimer, J. R., Esq., *Driffield, Yorks.*

1897 Mullen, Ben H., Esq., M.A. (Dub.), F.R.S.A.I., *Royal Museum, Peel Park, Salford.*

1885 Munro, R., Esq., M.A., M.D., F.R.S.E., 48 *Manor Place, Edinburgh.* (*¶)

1871 Murray, Adam, Esq., F.G.S. (*)

1875 Muspratt, Edmund K., Esq., F.C.S., *Seaforth Hall, Seaforth, near Liverpool.*

1896 Myers, C. S., Esq., 62 *Holland Park, W.* (¶)

1893 Myres, J. L., Esq., M.A., F.S.A., F.R.G.S., SECRETARY, *Christ Church, Oxford.* (*¶§)

1898 Nazar, M. H., Esq., Representative of Indians in South Africa, *P.O. Box* 182, *Durban, Natal.*

1898 Newton, Wm. M., Esq., 96 *Wood Street, E.C.*

1858 Nicholson, Sir Charles, Bart., D.C.L., LL.D., F.R.G.S., F.R.A.S., *The Grange, Totteridge, Herts.* (¶)

1869 Oppert, Dr. G., Professor of Sanscrit, *Bulowstrasse* 55, *Berlin.* (¶)

1870 Parker, W. M., Esq. (*)

1898 Parkin, Wm., Esq., *The Mount, Sheffield.*

1897 Parkinson, R., Esq., *Ralum, Bismarck Archipelago.*

1891 Partington, J. Edge, Esq., *Park Hall, Great Bardfield, Essex.* (¶§)

1891 Paterson, Professor A. M., Esq., M.D., *Anatomy Department, University College, Liverpool.*

1899 Paul, John Dennis, Esq., F.G.S., *Town End Close, Ratcliffe Road, Knighton, Leicester.*

1885 Peek, Sir Cuthbert E., Bart., M.A., F.S.A., 22 *Belgrave Square, S.W.; and Rousdon, Lyme Regis.* (¶§)

1891 Peek, The Hon. Lady, 22 *Belgrave Square, S.W.*

1894 Pengelly, Miss Hester, *Lamorna, Torquay, c/o* Rev. Prof. Harley, F.R.S., 15 *Westbourne Road, Forest Hill, S.E.*

1900 Petrie, W. M. Flinders, Esq., D.C.L., LL.D., Professor of Egyptology, *University College, Gower Street, W.C.*

1871 Phené, J. S., Esq., LL.D., F.S.A., F.G.S., F.R.G.S., 5 *Carlton Terrace, Oakley Street, S.W.*

Digitized by Google

Year of Election.

1898 Plowden, Sir H. Meredyth, *Leintwardine, Herefordshire.*

1895 Portman, M. V., Esq., *c/o King & Co., 45 Pall Mall.* (¶)

1896 Praetorius, C. J., Esq., *Pomona House, New King's Road, Fulham.*

1868 Price, F. G. Hilton, Esq., F.S.A., F.G.S., F.R.G.S., 17 *Collingham Gardens, S.W.* (¶)

1863 Pusey, S. E. B. Bouverie, Esq., F.R.G.S., 18 *Bryanston Street, Portman Square; and Pusey House, Faringdon, Berks.*

1891 Pye, Randall H., Esq., 155 *Victoria Street, S.W.* (§)

1899 Quick, Arthur, Esq., 33 *Brixton Hill, S.W.*

1868 Ransom, Edwin, Esq., F.R.G.S., 24 *Ashburnham Road, Bedford.* (*)

1866 Ras, The Hon. Rajah Sir Goday Naraen Gajapati, *Vizagapatam, India.*

1883 Ravenstein, Ernest G., Esq., F.R.G.S., 2 *York Mansions, Battersea Park, S.W.* (§)

1890 Ray, Sidney H., Esq., 84 *Grange Road, Ilford, Essex; and* 81 *Tredegar Road, North Bow, E.* (¶)

1875 Read, Charles H., Esq., F.S.A., PRESIDENT, Keeper of British and Mediæval Antiquities and Ethnography, British Museum, 22 *Carlyle Square, Chelsea.* (§¶)

1886 Reid, Robert William, Esq., M.D., Professor of Anatomy in the University of Aberdeen, 37 *Albyn Place, Aberdeen.*

1863 Renshaw, Charles J., Esq., M.D., *Ashton-on-Mersey, Manchester.* (*)

1893 Rigg, Herbert, Esq., 13 *Queen's Gate Place, S.W.; and Walhurst Manor, Horsham.*

1850 Ripon, The Most Hon. the Marquis of, K.G., G.C.S.I., C.I.E., D.C.L., F.R.S., 9 *Chelsea Embankment, S.W.; and Studley Royal, Ripon.*

1889 Risley, H. H., Esq., C.I.E., M.A., *Bengal Secretariat, Calcutta.* (¶)

1900 Rivers, W. H. R., Esq., M.D., *St. John's College, Cambridge.*

1899 Robertson, Sir G. Scott, K.C.S.I., *Highfields Park, Withyham, Sussex.*

1892 Robinson, Louis, Esq., M.D., 61 *Killicser Avenue, Streatham Hill, S.W.*

1882 Roth, Henry Ling, Esq., 32 *Prescott Street, Halifax.* (¶)

1882 Rothschild, Hon. Nathaniel C., *Tring Park, Tring, Herts.* (*)

1899 Rücker, Miss S. C., 4 *Vanbrugh Terrace, Blackheath, S.E.*

1871 Rudler, F. W., Esq., F.G.S., VICE-PRESIDENT, Corresponding Member of the Anthropological Society of Paris, 25 *Mornington Crescent, N.W.* (¶§)

1863 St. Clair, Rev. George, F.G.S., 11 *Vicarage Drive, Eastbourne.*

1863 Salting, W. S., Esq., F.R.G.S., 40 *Berkeley Square, W.* (*)

1864 Sanders, Alfred, Esq., F.L.S., F.Z.S., *The Hawthorns, Caterham Valley, Surrey.* (*¶)

1886 Sarawak, H.H. the Ranee of, 12 *Hans Place, S.W.*

1876 Sayce, Professor A. H. M.A., LL.D., *Queen's College, Oxford.* (*¶)

Digitized by Google

Year of Election.

1899 Scanlan, William R., Esq., 36 *Park Village East, Regent's Park, N.W.*
1900 Seligmann, Charles G., Esq., 23 *Vincent Square, S.W.*
1885 Seton-Karr, H. W., Esq., *Atherton Grange, Wimbledon.* (¶)
1866 Shaw, Lieut.-Colonel F. G., *Heathburn Hall, Carrigaline, Co. Cork.* (*)
1898 Shrubsall, Frank Charles, Esq., M.A., 34 *Lime Grove, Uxbridge Road.* (*¶§)
1866 Skues, F. M., Esq., M.D., Brigade Surgeon-Major, 51 *Kingstead Road, Catford.* (*)
1898 Small, James Willoughby, Esq., Principal Victoria College, *Jaffna, Ceylon.*
1865 Smith, Worthington G., Esq., F.L.S., 121 *High Street, Dunstable.* (¶)
1893 Somerville, Lieutenant Boyle T., R.N., *H.M.S. "Triton," Chatham.* (¶)
1867 Southby, Philip, Esq., F.Z.S., Barrister-at-Law, *Bampton, Faringdon.* (*)
1889 Southesk, The Right Hon. the Earl of, K.T., *Kinnaird Castle, Brechin, N.B.*
1886 Stanley, W. F., Esq., F.G.S., *Cumberlow, South Norwood, S.E.* (¶)
1873 Stanmore, The Right Hon. Lord, G.C.M.G., K.C.B., D.C.L., *Red House, Ascot.*
1880 Stephens, Henry Charles, Esq., M.P., F.L.S., F.G.S., F.C.S., *Avenue House, Church End, Finchley, N.* (*)
1892 Stephenson, Miss Rose, *The Hermitage, Duppas Hill, Croydon.*
1881 Stopes, H., Esq., 11 *Queen Victoria Street, E.C.* (*¶)
1887 Straker, Joseph, Esq., *Dipton House, Riding Mill, Northumberland.*
1883 Streeter, E. W., Esq., F.R.G.S., F.Z.S., 2 *Park Crescent, W.* (*)
1871 Sutherland, P. C., Esq., M.D., F.R.G.S., Surveyor-General, *Natal.* (¶)
1865 Swinburne, Algernon Charles, Esq., *The Pines, Putney Hill, S.W.*
1899 Swynnerton, Fred., Esq., *Oakwood Place, Simla, India.*

1899 Tabor, Charles James, *White House, Knott's Green, Leyton, Essex.*
1892 Taylor, Frederick, Esq., 250 *West 76th Street, New York City, U.S.A.* (*)
1879 Temple, Lieut.-Colonel R. C., C.I.E., Chief Commissioner Andaman and Nicobar Islands, *Government House, Port Blair, Andaman Island; c/o H. S. King & Co.* (¶)
1881 Thane, George Dancer, Esq., Professor of Anatomy in University College, London, *University College, Gower Street, W.C.* (*¶)
1884 Thomas, Oldfield, Esq., F.Z.S., 9 *St. Petersburg Place, Bayswater Hill, W.* (*¶)
1873 Thompson, J. Barclay, Esq., M.A., Lee's Reader in Anatomy, 39 *St. Margaret's Road, Oxford.* (*)
1890 Thomson, Arthur, Esq., M.A., M.B., Professor of Human Anatomy in the University of Oxford, *The Museum, Oxford.* (¶§)
1882 Thurn, Everard F. im, Esq., 1 *East India Avenue, E.C.* (¶)
1896 Tims, H. W. Marett, Esq., M.D., *Fairseat Cottage, Warwick Road, Ealing.*
1899 Tocher, James F., Esq., F.I.C., *Chapel Street, Peterhead, N.B.* (¶)
1895 Tolley, Richard Mentz, Esq., F.H.S., *c/o Darlaston Steel and Iron Works, South Staffordshire.*

Digitized by Google

Year of Election.

1885 Tregear, Edward, Esq., Secretary, Department of Labour, *Tinakon Road, Wellington, New Zealand.* (¶)

1879 Trotter, Coutts, Esq., F.G.S., 10 *Randolf Crescent, Edinburgh.*

1891 Tsuboi, S., Esq., *Science College, Imperial Institute, Tokyo, Japan.* (*)

1889 Turner, Sir William, M.B., LL.D., D.C.L., F.R.S. Lond. and Edin., Professor of Anatomy in the University of Edinburgh, 6 *Eton Terrace, Edinburgh.* (¶)

1867 Tylor, Edward Burnett, Esq., D.C.L., LL.D., F.R.S., Professor of Anthropology, Keeper of the University Museum, Oxford, VICE-PRESIDENT, *The Museum House, Oxford.* (¶§)

1891 Tylor, Mrs. E. B., *The Museum House, Oxford.*

1892 Tylor, Joseph John, Esq., *Fir Toll, Mayfield, Sussex.*

1891 Waddell, Lt.-Col. L. A., LL.D., 35 *Dartmouth Park Road, Highgate Road, N.W.* (*¶)

1863 Wake, C. S., Esq., Foreign Member of the Anthropological Institute of New York, 411 *East 45th Street, Chicago, Illinois, U.S.A.*

1874 Walhouse, M. J., Esq., 28 *Hamilton Terrace, St. John's Wood, N.W.* (¶)

1866 Wallace, A. R., Esq., D.C.L., F.R.S., F.L.S., F.R.G.S., F.Z.S., *Corfe View, Parkeston, Dorset.* (¶)

1891 Ward, Herbert, Esq., 53 *Chester Square, S.W.* (¶)

1897 Webster, John Aplin, Esq., 3 *Hanover Square, W.*

1896 Weld, Miss A. G., *Conal More, Norham Gardens, Oxford.*

1895 Wells, Samuel, Esq., F.R.G.S., *Richmond, Yorks.*

1897 White, Rashleigh Holt, Esq., M.A. Oxon, *Warren Wood, Bexley Heath, Kent.*

1900 Wilkin, Anthony, Esq., B.A., *King's College, Cambridge; Lower Cousley Wood, Wadhurst, Sussex.* (¶)

1869 Winwood, Rev. H. H., M.A., F.G.S., 11 *Cavendish Crescent, Bath.*

1868 Wölber, F. G. C., Esq., *Gaboon, West Africa.* (*)

1881 Wolfe, Miss E. S., *High Broom, Crowborough, Sussex.* (*)

SUBSCRIBERS TO THE PUBLICATIONS OF THE INSTITUTE.

The Library Committee of the Corporation of the City of London.

Digitized by Google

SOCIETIES, Etc., EXCHANGING PUBLICATIONS

WITH THE

ANTHROPOLOGICAL INSTITUTE.

GREAT BRITAIN AND IRELAND.

Ashton-under-Lyne...Free Library.
Berwickshire...Naturalists' Club Oldeambus, Cockburnspath.
Dublin...Royal Dublin Society.
— Royal Society of Antiquaries of Ireland.
Edinburgh..Royal College of Physicians.
— Royal Scottish Geographical Society.
— Royal Society of Edinburgh.
— Society of Antiquaries of Scotland.
Glasgow.....Philosophical Society.
Gloucester...Cotswold Naturalists' Field Club.
Leeds.....Philosophical Society.
Liverpool ...Philosophical Society.
London...British Medical Association.
— Egypt Exploration Fund.
— Folklore Society.
— Geologists' Association.
— Hellenic Society.
London...India Office, Whitehall.
— Japan Society.
— Journal of Mental Science.
— Nature.
— Palestine Exploration Fund.
— Quatuor Coronati Lodge, No. 2076.
— Royal Archæological Institute.
— Royal Asiatic Society.
— Royal Colonial Institute.
— Royal Geographical Society.
— Royal Society.
— Royal Society of Literature.
— Royal Statistical Society.
— Royal United Service Institution.
— Society of Antiquaries.
— Society of Biblical Archæology.
Manchester...Public Free Library.
— The Owens College.
Southampton...Hartley Institution.
Truro...Royal Institution of Cornwall.

EUROPE.

Austro-Hungary.

Agram... Kroatïsche Archäologische Gesellschaft.
Budapest... Magyar Tudományos Akademia.
Cracow... Akademija Umiejetnósci.
Vienna... Anthropologische Gesellschaft.
— K. Akademie der Wissenschaften.

Belgium.

Brussels... Académie Royale des Sciences, etc. de Belgique.
— Société d'Anthropologie de Bruxelles.
— Société d'Archéologie de Bruxelles.
Louvain... Revue Néo-Scolastique.

Denmark.

Copenhagen... Kongelige Museum för Nordiske Oldskrifters.
— Société des Antiquaires du Nord.

France.

Dax... Société de Borda.
Lyons... Société d'Anthropologie de Lyon.
Paris... L'Anthropologie.
— École d'Anthropologie.
— Revue Scientifique.
— Revue de l'Histoire des Religions.
— Société d'Anthropologie.
Vannes... Société Polymathique du Morbihan.

Germany.

Berlin... Berliner Gesellschaft für Anthropologie, Ethnologie, und Urgeschichte.
Breslau... Centralblatt für Anthropologie, etc.
Brunswick... Globus.

Digitized by Google

Giessen... Oberhessische Gesellschaft für Natur- und Heilkunde.
Halle-a-d-Saale... Kaiserliche Leopoldina Carolina Akademie der Deutschen Naturforscher.
Königsberg... Königliche Physikalisch-ökonomische Gesellschaft.
Leipzig... Verein für Erdkunde.
Metz... Verein für Erdkunde.
Munich... Deutsche Gesellschaft für Anthropologie, Ethnologie, und Urgeschichte.
Stuttgart... Zeitschrift für Morphologie und Anthropologie.

GREECE.

Athens... Archaiologikè Hetairía.
— British School of Archæology.

ITALY.

Florence... Società Italiana di Antropologia, Etnologia, e Psicologia Comparata.
Rome... Bullettino di Paletnologia Italiana.
Rome... Accademia dei Lincei.
Turin... Archivio di Psichiatria.

NETHERLANDS.

Amsterdam... Koninklijke Akademie van Wetenschappen.
The Hague... Internationales Archiv für Ethnographie.
— Koninklijk Instituut voor de Taal-, Land-, en Volkenkunde van Nederlandsch Indië.

RUSSIA.

Moscow... Imper. Obshchestvo Lubitelei Iestestvoznania, Antropologii, i Etnografii.
St. Petersburg... Imper. Akademia Nauk.

SWEDEN.

Stockholm... Academy of Antiquities, National Museum.
— Nordiska Musut.

SWITZERLAND.

Berne... Institut Géographique International.

AFRICA.

Cape Town... S. African Philosophical Society.

AMERICA.

BRAZIL.

Rio de Janeiro... Museu Nacional.

CANADA.

Toronto.....Canadian Institute.

UNITED STATES.

Cambridge, Mass... Peabody Museum, Science.
Chicago... American Antiquarian.
— Field Columbian Museum.
Philadelphia... Academy of Natural Sciences.
San Francisco... Geographical Society of the Pacific.
Washington... American Anthropologist.
— Bureau of Ethnology.
— Smithsonian Institution.
— United States Geological Survey.
— United States National Museum.
Worcester, Mass... American Journal of Psychology.

ASIA.

CHINA.

Shanghai... Royal Asiatic Society (China branch).

INDIA.

Bombay... Anthropological Society.
— Indian Antiquary.
Calcutta... Bengal Asiatic Society.
Colombo... Royal Asiatic Society (Ceylon branch).

JAPAN.

Tokio... Asiatic Society of Japan.
— Tokio-Daigaku (Imperial University).

JAVA.

Batavia... Bataviaasche Genootschap van Kunsten en Wetenschappen.

Digitized by Google

AUSTRALIA AND PACIFIC.

Honolulu... Berenice Bishop Museum.
Melbourne...Royal Society of Victoria.
Montreal ...Royal Society of Canada.
Sydney ...Australian Museum.
— Australasian Association for the Advancement of Science.
Sydney... Geological Survey Department.
— Royal Society of New South Wales.
Wellington, N.Z.... Polynesian Society.

Digitized by Google

Digitized by Google

Price 10*s.*

THE JOURNAL

OF THE

HARVARD COLLEGE LIBRARY
JAN 2 1900

ANTHROPOLOGICAL INSTITUTE

OF

GREAT BRITAIN AND IRELAND.

AUGUST AND NOVEMBER, 1899.

NEW SERIES. VOL. II, Nos. 1, 2.

(OLD SERIES. VOL. XXIX, NOS. 108, 109.)

All Letters and Communications for the Institute to be addressed to the Secretary, at the Institute, No. 3, Hanover Square, W.

LONDON:

PUBLISHED FOR

The Anthropological Institute of Great Britain and Ireland,

BY

KEGAN PAUL, TRENCH, TRÜBNER & CO.,

CHARING CROSS ROAD.

All Rights Reserved.

Digitized by Google

ANTHROPOLOGICAL INSTITUTE

OF

GREAT BRITAIN AND IRELAND.

OFFICERS AND COUNCIL FOR 1899-1900.

(Elected January 24th, 1899.)

President.

C. H. READ, Esq., F.S.A.

Vice-Presidents.

H. BALFOUR, Esq., M.A.
JOHN BEDDOE, Esq., M.D., F.R.S.
E. W. BRABROOK, Esq., C.B., F.S.A.
Sir JOHN EVANS, K.C.B., D.C.L., F.R.S.
A. J. EVANS, Esq., M.A., F.S.A.
FRANCIS GALTON, Esq., D.C.L., F.R.S.
Right Hon. Sir JOHN LUBBOCK, Bart., M.P., F.R.S.
Prof. A. MACALISTER, M.D., F.R.S.
A. P. MAUDSLAY, Esq., F.R.G.S.
Lieut.-Gen. PITT-RIVERS, D.C.L., F.R.S.
F. W. RUDLER, Esq., F.G.S.
Prof. EDWARD B. TYLOR, D.C.L., F.R.S.

Secretary.

WM. CROOKE, Esq., B.A.

Treasurer.

A. L. LEWIS, Esq., F.C.A.

Council.

W. M. BEAUFORT, Esq., F.R.G.S.
O. M. DALTON, Esq., M.A.
R. W. FELKIN, Esq., M.D., F.R.G.S.
H. O. FORBES, Esq., LL.D.
J. G. GARSON, Esq., M.D.
G. L. GOMME, Esq., F.S.A.
W. GOWLAND, Esq., F.S.A.
Prof. A. C. HADDON, M.A., D.Sc.
E. SIDNEY HARTLAND, Esq., F.S.A.
Col. Sir T. H. HOLDICH, K.C.I.E., C.B.
T. V. HOLMES, Esq., F.G.S.
Prof. G. B. HOWES, LL.D., F.R.S.
Sir H. H. HOWORTH, K.C.I.E., M.P., F.R.S.
Baron A. von HÜGEL, M.A.
Sir HUGH LOW, G.C.M.G.
R. BIDDULPH MARTIN, Esq., M.P.
J. L. MYRES, Esq., M.A., F.S.A., F.R.G.S.
J. EDGE PARTINGTON, Esq., F.R.G.S.
Sir CUTHBERT E. PEEK, Bart., M.A., F.S.A.
Prof. A. THOMSON, M.A., M.B.

Assistant Secretary.

J. APLIN WEBSTER, Esq.

Collector.

Mr. STRETTON.

MEETINGS DURING THE SESSION 1899-1900.

1899	TUESDAY,	November	7, 21.	1900	TUESDAY,	March	13, 27.
	,,	December	12.		,,	April	24.
1900	,,	January	9, 30.*		,,	May	15, 29.
	,,	February	13.		,,	June	12.

Specimens are Exhibited, and Coffee served at 8 p.m.; Reading of Papers commences at 8.30.

Each Fellow has the privilege of introducing two friends (ladies or gentlemen) to the Evening Meetings.

*ANNIVERSARY MEETING.

The Council will meet at Five o'clock on the days of Ordinary Meetings.

Extracts from the Regulations respecting the Election of Fellows:—

Every person desirous of admission to the Institute as a Fellow shall be proposed and recommended by at least two Fellows, one of whom shall certify his personal knowledge of such candidate. (*Ladies are eligible as Fellows.*)

Each Fellow shall pay an Annual Contribution of two guineas, which may at any time be compounded for by a payment of £21.

The Annual Contributions shall become due upon election (unless such election takes place in the month of November or December) and in advance on the first day of January in each year afterwards.

There is at present no Entrance Fee.

Fellows residing in the country, as well as in London, can borrow books from the Library.

Persons who wish to become Fellows of the Institute are requested to communicate with the Secretary.

Digitized by Google

NOW READY.

Notes and Queries on Anthropology.

THIRD EDITION.

Edited for the British Association for the Advancement of Science, by J. G. GARSON, M.D., and CHARLES H. READ, F.S.A. Published by the Anthropological Institute of Great Britain and Ireland, 3, Hanover Square, London, W., price 5s. (to Members of the British Association, and Fellows of the Anthropological Institute, on personal application at the Institute, 3s. 6d.).

Digitized by Google

ANTHROPOLOGICAL INSTITUTE

OF

GREAT BRITAIN AND IRELAND.

OFFICERS AND COUNCIL FOR 1899-1900.

(Elected January 24th, 1899.)

President.

C. H. READ, Esq., F.S.A.

Vice-Presidents.

H. BALFOUR, Esq., M.A.
JOHN BEDDOE, Esq., M.D., F.R.S.
E. W. BRABROOK, Esq., C.B., F.S.A.
Sir JOHN EVANS, K.C.B., D.C.L., F.R.S.
A. J. EVANS, Esq., M.A., F.S.A.
Right Hon. Sir JOHN LUBBOCK, Bart., M.P., F.R.S.
Prof. A. MACALISTER, M.D., F.R.S.
A. P. MAUDSLAY, Esq., F.R.G.S.
Lieut.-Gen. PITT-RIVERS, D.C.L., F.R.S.
F. W. RUDLER, Esq., F.G.S.

at 8.30.

Each Fellow has the privilege of introducing two friends (ladies or gentlemen) to the Evening Meetings.

*ANNIVERSARY MEETING.

The Council will meet at Five o'clock on the days of Ordinary Meetings.

Extracts from the Regulations respecting the Election of Fellows:—

Every person desirous of admission to the Institute as a Fellow shall be proposed and recommended by at least two Fellows, one of whom shall certify his personal knowledge of such candidate. (*Ladies are eligible as Fellows.*)

Each Fellow shall pay an Annual Contribution of two guineas, which may at any time be compounded for by a payment of £21.

The Annual Contributions shall become due upon election (unless such election takes place in the month of November or December) and in advance on the first day of January in each year afterwards.

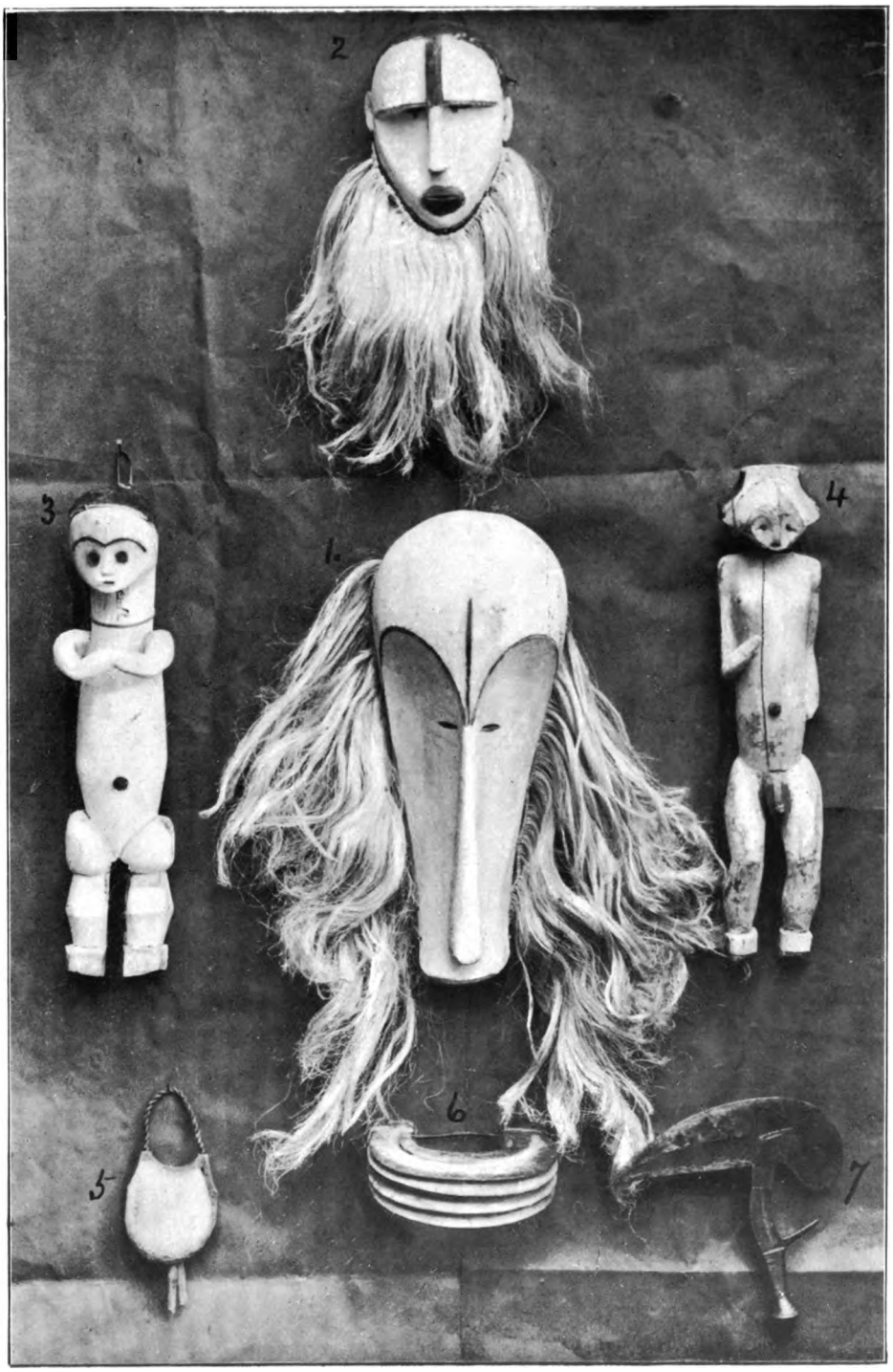
There is at present no Entrance Fee.

Fellows residing in the country, as well as in London, can borrow books from the Library.

Persons who wish to become Fellows of the Institute are requested to communicate with the Secretary.

Digitized by Google

Digitized by Google



1 and 2, Ngi masks used in the Fang Secret Society; 3, 4, Fang idols; 5, Wooden dogbell; 6, Ngi collar; 7, Sacrifice knife.

Digitized by Google

JOURNAL

OF THE

ANTHROPOLOGICAL INSTITUTE

OF GREAT BRITAIN AND IRELAND.

HARVARD COLLEGE LIBRARY
JAN 3 1900

ORDINARY MEETING.

FEBRUARY 14TH, 1899.

C. H. READ, Esq., F.S.A., *President, in the Chair.*

The Minutes of the last Meeting were read and signed.

The election of four new Fellows was announced, viz.:—ANDREW LANG, Esq., W. L. H. DUCKWORTH, Esq., T. T. GREG, Esq., and Dr. A. L. BENNETT.

It was stated that Mr. Edge-Partington had presented the Institute with a copy of the Third Series of his work, *Ethnographical Album of the Pacific Islands*, and a vote of thanks was carried.

Attention was called to a large collection of photographs which had been lent for an Evening Meeting by Mr. Guthrie Watson, and letters from that gentleman, relating to them, were read by the Secretary. A vote of thanks was passed to Mr. Watson for the exhibition.

The PRESIDENT introduced Colonel Sir T. H. HOLDICH, K.C.I.E., C.B., who proceeded to read his paper on "The Arabs of the Indian Frontier."

The discussion that followed was carried on by Mr. CROOKE, Dr. J. BEDDOE (who sent in a short paper), Mr. KENNEDY, Mr. A. L. LEWIS, and others.

The PRESIDENT pointed out the great importance of such papers, and the Meeting closed with a hearty vote of thanks to Sir Thos. Holdich.

Digitized by Google

SWATIS AND AFRIDIS.

By Colonel Sir T. H. Holdich, K.C.I.E., C.B.

Our recent campaigns in Northern India have been directed against tribespeople who have from time immemorial occupied a mountainous borderland separating the highlands of Afghanistan from the plains of the Punjab. Only recently has this border strip of territory been formed into an independent province by the demarcation of a boundary which, whilst it effectually shuts off Afghanistan, does not include this strip within British territory. We still leave these people alone, free to govern themselves after their own patriarchal system—a system which leaves much to be desired as regards our future safeguards against periodic outbreaks of fanatical hostility.

The original Paktun, or Pathán, inhabitants of these western gates of India are recognised in very early history, many of the tribes being mentioned by Herodotus, and by the historians of Alexander. In mediæval times the rough uncultivated wilderness of mountains that they held was called Roh, and its inhabitants Rohillas, and there can be little doubt that most of these early Rohilla, or Pathán, tribes were in their places long before the overlying Afghans were thought of. All Afghans are now numbered amongst Pathán, because they all speak the Pathán language, Pushtu, but they acknowledge no direct kinship with the Rohilla, declaring themselves to be Ben-i-Israel, the descendants of those tribes who were carried captive to Babylon by Nebuchadnezzar. All of them have however adopted the Pushtu tongue, and all recognise the same Pathán code of common civil observances called "Paktun-wali," which is, in many of its provisions, curiously suggestive both of the old Mosaic dispensation, and of ancient rites and observances of the Rajput races.

Thus the Pathán with whom we have lately been so largely concerned may be divided into two great communities, *i.e.*, those tribes such as Waziris, Afridis, Orakzais, etc., who are possibly of Indian origin, and those who are Afghans and claim to be Semitic, who represent the dominant race throughout our frontier; and it seems at least to be possible that the Paktunwali, which is an unwritten code, acknowledged by them all alike, may be of very mixed origin. We may possibly find in it Mosaic ordinances grafted on to Rajput traditions, and modified by Moslem custom. The Afghans, who have called themselves Duranis, ever since the foundation of the Durani empire about a century and a-half ago, say that they trace their descent from the Israelitish tribes through an ancestor named Kish, to whom the prophet Mahomet gave the name Pahtan (which is Syriac for a rudder) because he was to steer his people into the currents of the Moslem creed. We have already noted, however, that the Paktun or Pathán

Digitized by Google

nationality is very much older than Islam. It is difficult to account for the universal prevalence of Israelitish names amongst Afghans without admitting some early connection with the Israelitish nation. Still more difficult is it to account for certain observances, such for instance as the keeping of the feast of the Passover (which if not intelligently observed by the Yusufzai branch of the Afghan race, is at least curiously well imitated), or for the persistence with which the best educated Afghans maintain this tradition, without admitting some original basis of truth. Bellew thinks that this Israelitish connection may be a real one; but he points out that one at least of the three great branches of the Afghan family traditionally sprung from Kish, is called by the name Sarabaur, which is but the Pushtu form of the ancient appellation of the solar race of Rajputs, colonies of whom are known to have emigrated into Afghanistan after their defeat by the Chandrabans—the lunar race—in the great contest (or Mahabharat) of early Indian records. So that the Afghan may possibly be an Israelite absorbed into ancient Rajput tribes; and this has always appeared to me to be the most probable solution of this ethnological problem.

The modern Afghan, at any rate, takes his stand on the grounds of tradition to be one of the chosen race, a descendant of Abraham; and he only recognises affinity with other Pathans through the medium of a common language, and a common code of tribal custom. His principal habitat is on the south-west of Afghanistan, bordering Persia and Baluchistan. In the vicinity of Kabul, and of the frontier south of the Khaibar, Afghans are much mixed with Ghilzais of Turkish origin, and with Parsiwans, or Persian-speaking tribes of many origins, who predominate in that part of Afghanistan. North of the Khaibar, however, throughout the Mohmand country and the districts of Bajaor, Swat, and Bunér, we find the Afghan again predominating; again the ruling race.

Our recent campaigning beyond Malakand and Peshawar took us through the heart of this new Afghan province of Roh, the province that has lately been officially disconnected from Afghanistan and removed from Kabul influence by the demarcation of a boundary. The Afghan inhabitants of this new independent province did not understand the meaning of their severance from the Afghans of Afghanistan, and regarded the demarcation of a boundary with much suspicion, not feeling assured that the limitation of the Amir's responsibilities did not mean an increase of our own. In short, they thought that they were to be annexed to India, and this idea being sedulously fostered and encouraged by their mullahs, the result was a sudden explosion of fanatical hostility as unexpected by them as it was by us.

The nature of the connection existing between these different sections of Afghans requires a few words of explanation. The head-quarters and original seat of the Afghans may for present purposes be taken as Kandahar, where Ahmad Shah, the founder of the Durani Empire, was crowned king. From Kandahar the great Durani clan spread to the north-east and gave the Barakzai dynasty to Kabul, which dynasty still survives. From Kandahar, too, another great clan, the

Digitized by Google

Yusufzai, travelled eastward, and after many wanderings (of which the record is historical) they established themselves in lower Swat and Buner, dispossessing a tribe called Dilazaks about the middle of the fifteenth century. Who these Dilazaks were is not quite certain. Afghans deny that they were Patháns and call them Indians. They may have been Buddhists, although the Buddhist faith, which has left so many remarkable evidences of its existence in Swat and the Peshawar valley, had declined long before we hear of the Dilazaks. Buddhism flourished from 530 B.C. till the days of Skythic occupation of Swat, which succeeded the Bactrian rule in the second century A.D. In the fifth century it is described by a Chinese pilgrim as still the religion of the country, and it was then that its monasteries and stupas, its magnificent buildings, roads, and bridges rendered the fame of the kingdom of Udyana great and glorious from farthest east to the borders of Europe. Two centuries later there is evidence of its decline; and when Mahmud of Ghazni, as the apostle of Islam, burst on Swat in the early years of the eleventh century, his ruthless soldiery so devastated and wasted the land that little was left for Chenghiz Khan the destroyer, and Timur the Tatar, who followed in his footsteps several centuries later, to destroy. For 500 or 600 years after Mahmud's invasion the whole of Swat and of the Peshawar valley was a howling wilderness, the home of the tiger and the rhinoceros which infested the Indus swamps. When Babar (the founder of the great Moghul dynasty in India) came in 1519, he found the Yusufzai in occupation of lower Swat and Buner, and the Dilazaks still a fighting people; for he had to defeat them before he could occupy Bajaor. As we know from other sources that up to the middle of the sixteenth century a large part of Swat was still in the hands of Kafirs, or infidels, and as the Kafirs of Lower Kafirstan to this day claim to have been driven out of Swat, I think it not impossible that we might find remnants of the Dilazaks amongst these interesting, but remarkably mixed, people. However, that may be, all that remains of the Buddhist element of the population are a few uncultured folk to be found here and there (so Major Deane tells me) scattered in groups amongst the wildest and most inaccessible of the Swat hills. The Yusufzai Afghan reigns supreme in Swat, whilst the Laghmáni (an Afghan race of the Laghmán valley) has spread into the Mohmand country and Bajaor.

The Swati as we know claims to be independent—but his independence lacks historical support. At the end of the sixteenth century he was crushed and almost annihilated by one Zain Khan, who was sent by the Government of Kabul to collect taxes. In 1670, again, he was most severely handled by Aurungzebe. In 1738 he gained a temporary success at Ambela against Nadir Shah's forces; but it was very temporary. Nadir Shah appeared in person before Buner, and the Yusufzai collapsed, as he collapsed but a short time ago before Sir Bindon Blood. The Yusufzais paid up revenue to Timur, son of Ahmad Shah, founder of the Durani Empire, after assisting Ahmad himself in the capture of Lahore. They even assisted Shah Zaman, son of Timur, and until they were defeated by the Sikhs at Naoshera (on the same battlefield on which they themselves had

Digitized by Google

attained the mastery of Peshawar), they acknowledged the Afghan supremacy of Kabul. When we defeated the Sikhs in our turn, they should have admitted our supremacy, but this they never have done, and their national status for the last fifty years may be described as an independence, with a strong bias towards Kabul. It must not be supposed that the Afghan Yusufzai is the only inhabitant of Swat. There is a very large population of the original land-owners mixed with the Afghans, but we have not time to deal with these secondary races who now rank as strangers in the land that their fathers owned. The ruling population is, as I have said, Afghan, but sectarian differences have arisen between the Yusufzai and the Afghan Mohmands, or Mahmandzai, and they have held more or less aloof from each other in consequence. Both tribes, however, look to the Amir of Kabul as their chief spiritual head and temporal adviser.

The Yusufzai are by no means the degenerate race that they have sometimes been represented to be. There are many remarkably fine men amongst them, and they make excellent soldiers. But he is a home-loving individual. He will serve abroad as his forefathers have done, but he ever looks forward to the final return to his native village and his share in the family patrimony. Here he hopes to spend his declining days, making up by extra devotion and attention to religious observances, for the sins and omissions of his youth. This desire to end his days in peace, and to rest finally in the village cemetery, is rather surprising, considering that the system of land tenure in Swat is of a most complicated description, and involves the complete change of ownership after a certain term of years; that is to say, that the whole population of a village walks out, and a new population walks in. This system is fatal to land improvement, and does much to impoverish the country, and one would have thought that it would have told strongly against that love of home which is so marked a feature in the Yusufzai (and indeed in all Afghan) character. The Yusufzai are a cheerful race, fond of music and much addicted to what we might call amateur theatricals. In these village representations it is said that the British local official does not always figure to advantage. Each Yusufzai clan under its own chief forms an independent commonwealth, and owes on allegiance to others; so that when not bound together by the ties of common interest, they are rivals, much as the Scottish clans of 300 years ago were rivals on our English border. Raids and counter raids are the excitements which vary the round of religious observances and pilgrimages in times of peace, and these are so much a part of Yusufzai national existence that every village owns its warning drum, which assembles the men together for village defence the instant that scouts bring in warning of attack; and it is astonishing how soon the whole country-side can be called to arms by this means. A curious instance of rapidity of action, and of the blind way in which they will follow the leadership of any mullah whose lying fanaticism is vigorous enough to rouse them into activity, was evidenced by their remarkable proceedings immediately before the late attack on Malakand. A week or two, even a day or two, before the attack, active hostilities were no more anticipated by the Swatis themselves than by our own

Digitized by Google

political officers on the frontier. The mullah, as usual, was the motive power. Who instigated the mullah and set him in the field on this crusade we will not stop to inquire. But thus it happened that whilst there was distinctly "unrest" amongst the Swati tribes-people for some months previous to the attack, there was no sign whatever of active aggression until a certain Fakir arose, called the Sartor Fakir or "bareheaded" one. He had travelled far, and seen men and cities. He had been to Baghdad and to Turkestan, had visited the Amir at Kabul, and thence moved on to Buner, where he became custodian of a well-known ziarat or shrine. About the middle of July he set himself to work on the credulity of the Swatis, but he was generally accounted mad, and his assertions that he could feed thousands from a single pot of rice, and turn aside the bullets of the enemy were not generally accepted. On the 26th July, he appeared at Thana, which is the Khan Khel, or ruling village, of the Swat district in which Malakand and Chakdara are situated. Here he had a following of but a few boys. He announced that he was about to turn the Feringhi out of Malakand, but finding it still somewhat difficult to obtain a following, he is said to have actually made a start on Malakand with his half fledged supporters, asserting that if the men of Thana would not help him, the intervention of heavenly hosts would complete the defeat of the enemy; but he pointed out that in the distribution of loot that would certainly follow, the Thana people must be content to stand aside. This was too much for the cupidity of the Swati. About a thousand men joined his standard at once, and the Khan of Thana himself taking a comfortable view of the proceedings from a Tonga which was driven after the rabble, a sudden rush was made—so sudden and so determined, that the political officer (Major Deane) had barely time to issue his warning when the tide broke against Malakand. Once the action commenced, tribes-people flocked in from every quarter, and the fury of their fighting is attested by every officer who witnessed it. General Meiklejohn, who commanded at Malakand, told me that when the cavalry was able to act in the open against these half-armed people, he saw them turn to meet the charge with sticks and stones. We need not think of the Swatis as a degenerate and cowardly race. They fought like the Arab races of the Sudan—like Zulus—like Afridis; and we may be thankful that they were not armed like Afridis.

But we must leave the Swatis and turn to a totally different people. The Afridi is not an Afghan and admits of no connection with the Afghan. He is more probably of Indian extraction, and has accepted the faith of Islam; but he is an indifferent Mahomedan, having adopted any sectarian doctrine that suits his views. He lives in a country that differs in most important geographical features from the land of the Swati. No high road to India runs through his domains. His head-quarters at Maidan are a sort of *cul de sac*, possessing no strategic importance whatever; but he believes in his country and he loves it as a terrestrial Paradise. Like the Swati he boasts of an unconquered independence, and with much more reason; for his ancestral highlands, dovetailed geographically between the Khaibar and the Kuram are so inaccessible, and so

Digitized by Google

well adapted to defensive tactics, that they have been prudently left alone by successive Kabul rulers, who saw nothing to be gained by the troublesome conquest of a country which leads nowhere, whilst they were in easy possession of all the surrounding districts. The independence of the Afridi has been the independence of a bee's nest in the midst of cultivation, and he has been so long undisturbed that like the Yusufzai of Buner, he had come to the conclusion that a special providence would always intervene to turn aside the invader. He has, at any rate, taken his own measures to turn aside the explorer; for until the late campaign in Tirah, no efforts to bring those interesting highlands within the pale of border topographical mapping has ever been successful.

The Afridi is said to owe his present laxity in religious discipline to an Afghan adventurer named Bazid, who, finding his heresies repudiated by the Yusufzais in the middle of the sixteenth century, betook himself to Tirah; and there discovered a people whom they exactly suited. It is worth noting that the Chamkanni tribe, who live on the western borders of Tirah, are supposed to be degenerate Afghans who have fallen away from the true faith, and are now classed as infidels and heretics by Duranis and Yusufzais alike. Politically the Afridi no more interests himself in the Swati than he does in the Laplander or Esquimaux, and yet it would be incorrect to say that the Swat rising had no disturbing influence in Tirah. Any rising on the border has a disturbing influence throughout the adjoining districts; and Saiad Akbar, the prophetic Mullah of Tirah, probably used precisely the same arguments as an incentive to active hostilities that the mad fakir in the first instance, and the Hada mullah, in the second, had preached on the hills in Swat and Mohmand. Fortunately for us the Afridis were comparatively slow in responding. Their government is perhaps the most decentralized government in the world, and its machinery works spasmodically. They have neither a well recognised head of the whole tribe, nor a single village which could boast of being a capital town either for purposes of trade or government. On the top of an ill-constructed shed in Bágh (which is geographically about the centre of the great Maidan plain) their councils are wont to meet, and intertribal affairs are discussed with much acrimony, and no little danger to the county representatives. A useful assistance to parliamentary argument is said sometimes to be found in their weapons, one of which was triumphantly pointed out to our officers. It was an antiquated old pistol with a deadly power of scattering slugs and other missiles with impartial effect at short distances; and it was said to be a most useful support in jirgah controversy.

I have said that there is no recognised head of the great Afridi tribe; I might almost say there is no recognised head even to the section, or clan, of that tribe. Every chief of a family is practically a law unto himself and to his family, if he is only strong enough to hold his own. Blood feuds and murderous reprisals, carried out in deadly vengeance for a breach of the Afridi code of honour (which is real enough, although crude and crooked) may be called common domestic incidents, and this leads to a curious absence of that amalgamation for

Digitized by Google

purposes of self-protection, which is indicated by walled and fortified villages such as are common elsewhere on the frontier. Division of authority also leads to peculiar difficulties in the matter of our political relations with these people. I believe that one single clan (the Zakka Khel) were represented in the final jirgah at Peshawar by about seventy chiefs. Although the various clans, Malikdin Khel, Kambar Khel, Zakka Khel, etc., will combine against a common invader, they live under ordinary circumstances in a state of deadly animosity in their own country, and under quite different conditions of social existence. For instance, we have so many Malikdin Khel and Kambar Khel in the ranks of our native regiments, as to lead to a suspicion that nearly every fighting man in those clans must have passed through our ranks. The Zakkas, on the other hand, send us but few recruits. They are the great salt traders of the community, and the advantage that they possess in holding lands which stretch from the centre of Tirah to the plains of Peshawar on the one side, and to the passes into Afghanistan on the other, gives them a peculiar advantage in commercial pursuits.

With all his hereditary instinct towards treachery and cruelty, we must admit that the Afridi has shown himself to be a right good soldier in the field, and he is frequently in himself a right good fellow in private life. His open-mindedness towards his hereditary enemy is as marked as is his occasional vindictiveness towards his fellow clansman. Family ties are nothing to him if they clash with that code of morality which requires him to be true to his salt. I have heard of an Afridi sepoy who, when urged to pick off the leader of a band of frontier raiders with his rifle, certainly exhibited a good deal of bad marksmanship; but he left it to the end of the fight to explain that the leader whom he was requested to shoot (and whom he so often missed) was his own father. But I really do not believe that they would all of them be so particular.

When arrayed against us the Afridi has shown himself to be as brave a soldier, as he is a capable marksman. His great natural intelligence has not only taught him how to use his rifle, but how to combine under able leadership. And latterly, he has learnt some of the lessons taught by civilized warfare. It was only towards the end of the campaign that we found out (too late unfortunately to save us from much loss for want of this knowledge) that our wounded would be cared for, and our dead respected. This is a great advance in the ethics of savage frontier war; and goes very far to make up for the difficulty we have experienced (and may yet again experience) in meeting well-trained soldiers in a field entirely suited to their tactics, armed with the best of modern weapons.

And we may note that the Afridi is still well armed in spite of our efforts to disarm him. With all the astuteness of the canny Scotch clansmen of three centuries ago, he has been able to retain all his best weapons whilst making up the tale of arms to be surrendered at the conclusion of the late campaign. An old friend of mine who is almost as well acquainted with the highlander of our Indian frontier as with his own Scottish tribes-people, recently unearthed at

Digitized by Google

Montrose some quaint records of English frontier fighting of the past; and he found that the necessity for delivering up arms formerly led to quite a brisk trade between Scotland and the Continent. Cheap weapons were imported in large quantities for delivery to the English generals.

And now, whilst apologising for myself as a most inefficient anthropologist (for I have not even a rudimentary acquaintance with that science) I may perhaps be permitted to advocate the absolute necessity for a careful study of the people with whom we have to deal, of their idiosyncrasies, and especially of their history, as an assistance in reaching right conclusions as regards our future relations with them. It seems to me that if you study the history of Afghanistan and its most unstable government propped up from its earliest infancy by external assistance from India; if you read rightly the story of our own advance from the stage of commercial pioneers to that of Empire in India, and note the struggles of the East India Company against the greatness thrust upon it of territorial possession and political sovereignty, you will require no political prophet to guide your conclusions to an issue. Policy is, after all, only a retarding or a progressive agency in those great movements which attend the development of nations; and it can never lighten the burden of England's responsibility as the greatest civilizing agent that the world has ever seen.

Digitized by Google

THE ARAB TRIBES OF OUR INDIAN FRONTIER.

By Colonel Sir Thos. H. Holdich, K.C.I.E., C.B.

The long extended north-west frontier of India presents so many ethnographical problems of the highest interest for scientific study that I need hardly apologise for introducing a part of it to your notice this evening—a part which is very little known, and has but lately fallen within the pale of geographical survey. It is not so very long ago that the passenger by the North-Western Railway from Karachi to Multan could look westward and, for a great part of his journey, see absolutely to the utmost limit of our frontier mapping. A blank high wall of impassable hills marked the line where the plains of Sind came to an end, and beyond the face of those hills all was lost in conjecture. It is this borderland of Baluchistan, including the maritime province of Makrán, which stretches westward from India to the Persian Gulf, with which we have to deal at present, and which offers so many ethnographical problems for solution as to have filled the souls of explorers with despair. In the course of surveying the country we have learned something of the ethnographic characteristics of the country generally, and we have had opportunity for verifying the conclusions expressed by those few scientific observers who have paid any attention to this wilderness previously; but surveyors are not anthropologists, and their time for inquiry in this particular branch of science is short. If therefore I express the views that I have adopted from such cursory examination as I have been able to make, you will understand that it is quite as much with the object of gaining information, as of giving it, that I venture to address you.

Geographically this is a most important corner of Asia. It lies between Persia and India; the high roads from the west to the promised land of the east run through it, either passing up its narrow valleys to Kalat and Quetta, or following a more southerly coast route to the Indus delta. Sistan, once "the granary of Asia," lies on the north-west of Makrán; Persia is to the west, and India to the east. On the south is the Arabian Sea, and on the north a desolate expanse of sandy desert which fills up the map between Makrán and the great Helmund river. Through Makrán a ceaseless tide of human emigration has set from the very earliest periods of which there is traditional record, and it would certainly appear that this tide has ever set eastward. We know that Alexander struggled through from east to west, but his was a military expedition, not a national movement. And there have been certain reflex waves from India which have left their flotsam stranded in the Makrán hills, but whether historically or traditionally, all the great tides which have swept through the country, tides from

Digitized by Google

Syria, from Mesopotamia, from Persia, from Arabia, have passed from west to east, and, historically, have all been directly connected with the command of the eastern seas.

Small wonder then that we find in Southern Baluchistan a most extraordinary conglomeration of mixed Asiatic nationalities. Medes and Persians, ancient Chaldeans, Arabs, Turks, Monguls, Skyths, Rajputs and aboriginals; even Sikhs and Ethiopians have left their mark on Makrán, and the lost threads of many an ancient history or national tradition might be picked up here, were scientific anthropologists to turn their attention to the country. All this part of Baluchistan separating India from the Persian province of Khorasan is a difficult and dangerous country to pass through. It is for the most part a wilderness of hills, of jagged, barren, dry, and unprofitable hills, but intersected by valleys which here and there are not only fertile, but exceedingly beautiful. Taking them as a whole these narrow intersecting valleys run east and west, and afford an excellent highway to those who know how to approach them at either end. Alexander did not know how to make use of these natural highways of the country, and was soon hopelessly entangled in the maze of difficult and rough hill country which surrounds them. The Arabs did know how to use them, and for centuries maintained a great trade high-road right through Makrán to India. Not only so, they possessed great cities and a cultured and wealthy population of merchants in them, who were renowned through the world for their probity and fair dealing. And yet it is difficult to conceive that, were it not for the value of the coast and its harbours and of the rights and properties of that great trade highway, even those wonderful people, the pre-Mahommedan Arabs, would have cared much for the occupation of that sun-dried wilderness. It is true that the climate may have been different in the early centuries of our era to what it is now. Now, but for a few months of respite in the winter, the ceaseless blaze of furnace heat is such, that in parts of Makrán even flies find the burden of life intolerable, and the sun-cracked earth refuses the boon of water, except at far distant intervals. The S.W. monsoon hardly touches Makrán, which partakes much more of the climate of Eastern Persia than of that of Western India. Yet this is the country which so teems with the evidences of occupation by so many successive waves of oriental humanity, that I hardly know which section of it is most important or most interesting. It may perhaps be best to sketch generally what we actually find there, and leave scientific deductions to more advanced students of anthropological science; for the science of ethnography and of anthropology is yet in its infancy in India. With easier means of communication, and the advance of direct and intimate relations between England and India which will arise therefrom, we shall no doubt find European scientists selecting a field for research which is left at present to the leisure opportunities of hard-worked Indian officials.

The very earliest occupants of this geographical link between Persia and India of whom we read anywhere, appear to be those hairy, fish-eating savages whom the Greeks encountered near Tomeros (which I have identified with the modern Hingol

Digitized by Google

river delta) who lived in huts built of fish-bones, used their long nails as fish knives, and fought with wooden pikes hardened in the fire. There is nothing apocryphal about this description. A people of that sort must have been there in primæval times, and evidences of their existence in the jungles of Western India until quite recently are not wanting. They have, however, long since disappeared from regions where there were no forests to shelter them, and they gave place in Makrán to a race of builders, erecters of stone dwellings that are found in immense numbers clustered on the sides of certain hills, and which have long been a puzzle to local investigators. Colonel Mockler, who was for some time politically employed on the Makrán coast, has gone farthest of anyone in unravelling the mystery which surrounds them. These buildings are constructed of slabs of limestone which abounds in Southern Baluchistan, in the form of small rectangular constructions (the slope of a hill sometimes forming one side) with doors facing westwards. They are locally known as Damb, and the hills on which they cluster are called Damba Koh. No one yet has successfully unravelled the riddle of the Damba Koh, although several theories have been advanced. I should not be surprised if they are eventually traced to a connection with other buildings, intermixed with strange stone circles, which are found along the western highlands of India stretching down through north and south Arcot, and which are now credited to the Pandomanagai—the race of little people—the pygmies of India, communities of whom are still to be found in the south. If so, this is the earliest record of that gradual and ceaseless migration southwards which has resulted in filling up the ethnographic reservoirs of Southern India with innumerable Dravidian tribes.

But as far as Southern Baluchistan is concerned the pygmies (if ever they were there) have long since disappeared. Gone, too, are many of those Dravidian peoples who once made Makrán all their own; including those who followed the Mesopotamian custom of burying their dead in pots, as well as some of those who opposed Alexander's advance. They may have joined the great army of lost tribes, or they may still be represented (as I believe them generally to be) amongst the Dravidian people of Central and Southern India; but their place in Makrán knows them no more. But if some have disappeared, many have remained, and we can to this day identify most of the tribes mentioned by Herodotus as occupying the 17th Satrapy of the Persian Empire, or by Arrian as joining in the extermination of the Greek army. It is more than probable that the great Brahui tribe (the only one that has made solid headway against the Arabs) who occupy all Sarawán and Jalawán, the east and west highlands of Kalat stretching down the frontier southwards from Quetta, is Dravidian, mixed no doubt with non-Dravidian elements, amongst which there is an affiliated Mongul people who form a very strong and important section of this borderland community. It is only quite lately that it has been possible to survey the wild wilderness of rugged highland territory that is occupied by the Mingal or Mongul clans. It should be noted that the name Brahui (or

Digitized by Google

Bar Rohi) carries with it the same signification as Rohilla, or Kohistani, or as the Parikanoi of the Greeks, or the Accad of ancient Mesopotamia. It means simply "mountaineer."

From the neighbourhood of Kalat southwards towards Karachi there is an exceedingly rough tract of the Sind border. Here, in the narrow and constricted valleys which intersect the rugged and pathless maze of the frontier barrier of mountains (a barrier which is nowhere open to practicable routes and which is one of the roughest and toughest areas ever brought under survey), we find nothing but Brahuis and Mingals. In the extreme south the little triangular province of Las Bela is peopled by Rajputs, one of those reflex waves from India of which I have spoken. It is a comparatively recent wave. West of the Dravidian area we find a colony of pure Persian extraction—the Naoshirwanis. They also are said to be comparatively recent arrivals in the land. They are at any rate a finer race of Persians than any I have met with in Eastern Persia, and many notable border warriors have been numbered amongst the Naoshirwani chiefs of Kharán.

Beyond these again, throughout Southern Baluchistan and Makrán, are tribes innumerable, many of which were known in the days of Herodotus, and some of which have figured as the ruling people of their time—chief amongst the great confederation of tribes. Amongst such are the Boledi, spoken of by Ptolemy, who are still locally recognised as a survival in the seats of the mighty, though they have long been dispossessed of their country by a people of Sikh extraction called Gichki. Their ancient royalty is now represented by one old lady whose name is Miriam, and who is exceedingly cunning in needlework. Speaking in most general terms, it may be said of Southern Baluchistan that lowest in the scale of all these tribal communities and subdivisions are those people of ancient Persian stock who spread all through Southern Asia in the days when Southern Asia was all Persian. These Tajaks are the tillers of the soil, the slaves and husbandmen, hewers of wood and drawers of water throughout the land, and may often be recognised by their tribal designations, though they usually claim affinity with some tribe higher than themselves in the social scale. Overlying and overspreading this once dominant Persian brotherhood are those Semitic (Arab) races, who of all the conglomeration of this mixed Baluch community are the most interesting and the most worthy of careful study. For the story of the Arab occupation, first of Sistan, then of Makrán, and finally (having command of the sea), of all Western India, cannot fail to be interesting to us from many points of view.

The complete history of that magnificent instrument of civilisation, the Arab nation, has yet to be written, but it has always appeared to me that in the construction of such outlines of it as we possess, the limits of space which are drawn round the story, whether of time or of locality, are far too narrow. We are accustomed to think of the Arabs as a great conquering people who commenced their national career by carrying the banners of Islam through the world, and stamping their faith on its great civilised communities. But if by Arabs, we mean the inhabitants of Arabia, history and tradition alike fail

Digitized by Google

us in unravelling the first beginnings of their civilising mission in the world. History teaches us that they were a great fighting people. Tradition informs us that they were a great mercantile people, long before they took to the sword.

Who were those people who came up from the sea and taught the Turanian inhabitants of Mesopotamia to build temples to the planets and to cast aside their demonology? Who were they who carried the first rudiments of the science of navigation from the Eastern seas to the Mediterranean; whose ships left no known shores unvisited in the gradual development of western commerce? Phœnicians you will say—but who were the Phœnicians? If we are to trust to what we are now told about them, they started for the Mediterranean from the Bahrein islands (where their tombs now stand) the ancient names of which, we are told, are Tyros and Sidodona, and they were a well developed race of builders and traders even when they left their original home on the Arabian coast. In the early centuries of our era they were as completely masters of the eastern seas as we are now. Wherever they spread in search of trade, through Africa, or Western Europe, or Eastern Asia, there they carried the science of building, irrigation, and road making with them, and there they established trade centres and colonies.

Our own first beginnings in the science of ocean navigation were borrowed from the Arabs. Our first great sailing ships were modelled on the Arab "buggalow" or "dhow." Their science has stood still whilst we have progressed till we have arrived at an "Oceanic" and a "Majestic." Our naval terms are Arabic. What else is "admiral," or the names of our smaller craft, "barge," "dinghy," and the apparently good old English word "jolly-boat"? The corresponding boat in Arabic is "jalaba," and as the other names are clearly Arabic I do not see why that should not be. So that we need not be surprised if there are evidences of Arab influences, and probably of Arab occupation, in Africa and India, and on the Persian and Makrán coasts, long before the days of Islam. It is true that they did not actually occupy Sistan and Makrán till after the downfall of the Persian monarchy; but they possessed widespread settlements there long before the invasion of India by Mahomed Kassim in 705 A.D. It was their occupation of Makrán, combined with the command of the sea, that so signally assisted the progress, not only of that most successful invasion, but of a simultaneous expedition for the conquest of China. Sistan, Makrán, and Southern Baluchistan, as well as Sind, are all full of their records in brick and stone. In Sistan there are to be found the remains of cities of brick-built houses, and tombs which are of the structure of those which now stand in the cities of Southern Arabia. In Baluchistan and Makrán there are thousands of relics of splendidly constructed "bunds" or dams to form water reservoirs for irrigation purposes where water is scarce. I need not tell you of the remains of the great mediæval cities which formed a line through Makrán to India almost from end to end; of the groups of decorated tombs sacred to the memory of the Khalmat chiefs; of

Digitized by Google

the stone sepulchres of the kings at Tatta, in Sind. All these things are written of elsewhere. The point on which I wish to insist is that the Arabs are on the frontier still. Ask any Baluchi whom you may meet, and he will almost certainly say that he is an Arab of the prophet's own tribe, and that his tribe came from Aleppo.

It is possible that there are few *pure* Arabs in the border country. We know that in the time of the great Arab invasion of India through Makrán the Arab troops, who were mostly drawn from Syria, never saw their country again, and they brought no women with them. It is probable therefore that there was originally much admixture in the ranks of the Baluch tribes of Arab extraction, just as there is in the Tajak tribes of quasi Persian extraction, and it is not improbable that more of the mixed races have stayed to make this their country than of the pure bred Arabs who must have come over in thousands during the centuries in which they held the dominant power in the Indus valley. However that may be, it is certain that the Arab tongue has disappeared from the Indus valley as completely as it has from Makrán, and that the language of all tribes alike is now that archaic form of Persian which we call Baluchi.

According to Sir H. Elliot (who quotes Ferishta), the Arabs never really colonized Sind, and their occupation of the Indus valley terminated with Al Kadir in 1031. Yet they occupied Makrán, and a great part of the Persian coast, long after the last of the Kalifs had been starved in his treasury at Bagdad, for we have the evidence of Marco Polo in 1290 that "the most part of the people in Kez Macoran are Saracens. They live by merchandise and industry, for they are professed traders and carry on much traffic by sea and land."

The most prominent of the Arab tribes are now included in the great Confederation of Rinds. Rinds are to be found under that designation in two groups, one to the north-east of Kalat, which includes the Marris, Bugtis, Bozdars, etc., and one in Makrán massed about the lower Kej valley near Mand. These latter are usually known as the Rinds of Mand. But the desert bred Rekis, the Sinjaranis of the Helmund, and many other tribes all call themselves Rind, and all subscribe to the same old tradition that their progenitors were Khoreish Arabs who were driven from Syria by the persecution of the Kaliph Yejid at the end of the seventh century. But there have been tribes in Sind in comparatively recent times who claim direct connection with Arabia. Such were the Khalmatis who are traditionally supposed to come from Oman, who took their name from Khalmat on the Makrán coast, where they settled ere they finally migrated to Sind, and became a powerful and dominant people in the lower Indus valley and the plains of Las Bela.

It is long since every vestige of the mediæval Arab cities of Makrán and Béla has disappeared, so far as buildings are concerned, but the tombs of the Khalmats are still there, grouped in clusters on rising ground, overlooking the rivers and plains, wherever a fairer prospect than usual greets the eye, and commends itself to a sense of natural beauty. There are many of them within reach of Karachi,

Digitized by Google

and in simplicity of design and construction, allied to an equally simple grace of geometric ornamentation, I know of nothing to equal them elsewhere. I believe the Khalmatis have disappeared altogether, but of this I am not quite certain. The carvings on these tombs are as fresh and clean cut as if they had been fashioned yesterday, but in that exceptionally dry climate they may be many centuries old all the same. To put it broadly, all the best of the Baluchis are Arabs by descent, and the best of the Baluchis are the best of our frontier tribesmen. We do not see many of them in our ranks as sepoys. They do not care about the discipline of regular service, and our so-called Baluch regiments, like some of our so-called Highland regiments, are not distinguished for the number of recruits who answer exactly to the regimental designation. But as border robbers and raiders, as light horsemen of the heroic type, they have probably been unequalled since the days of the Parthians.

The true Baluch chief is a gentleman by nature and heredity, a gentleman such as one may meet in Arabia, self-possessed, courteous, free, yet graceful in his bearing, an accomplished horseman, a man of the world, who is not to be disconcerted by such trifles as a want of linguistic knowledge or the surroundings of civilised existence to which he is unaccustomed. I have seen an Arab chief sit down to breakfast in a company of officers on board ship. He "came from the country," and had probably never seen a knife and fork before. Possibly he had never sat in a chair. Certainly he did not know a word of English, nor his entertainers a word of Arabic, yet he retained not only his dignity but his ease, and in half-an-hour he was complete master of the situation. There is much of this *savoir faire* in the Baluch, who is as distinct from the Pathán who jostles him on the frontier border as a Circassian chief is from a Levantine.

I have often been asked why it is that our control of the southern borderland is so much more effective than that of the north. It is very much due to our strategical position there. We are not merely *facing* the Baluch independent tribes; we are at the back of them, and their country is more easily approached from the back. Quetta is not merely a block in the way of an advance into India; it is the metropolis of Baluchistan, occupying a central dominant position from the control of which there is no escape. But there is also to be considered the difference in the national characteristics of the two races. Both are subject to tribal organisation, but the Pathán is individually more independent, acknowledging no authority but the tribal jirgah, and surrendering his freedom of action only at the voice of the mullah. The head of every Pathán household considers himself a chief in his own right, as good as any other chief in his clan. The Baluch, on the other hand, is loyal and true to the acknowledged head of his tribe, and as much of a patriot as any highlander of the Scottish border. This much simplifies the political dealings of government with him. His method, too, of meeting an enemy in the field is different from that of the Pathán. When a Baluch warrior goes into action he goes to stay. He will picket his mare under the nearest tree, and rush into the thick of the fray with sword and shield, scorning to take

Digitized by Google

advantage of cover, fighting with the traditional courage of the Arab in the open field, whether that field is in the valleys of Baluchistan, or in the Sudán. And the result is the same in either case.

We all know what happened at Omdurman; but perhaps few followed the course of the brilliant little campaign lately conducted by Col. Mayne in the far rougher field of Makrán. The Baluchis thought to overwhelm his little force in the open, just as the Khalifa thought to overwhelm Kitchener. And when that notorious old freebooter and robber, well named Baluch Khan, found that individual courage was of no avail against better discipline and better arms, he put himself at the head of a gallant remnant of his force and went straight for the guns. He died like an Arab.

I need not refer to the very different tactics adopted by the Afridi, who does not lack courage either, but much prefers stout cover and a long range rifle whether engaged in a national fight or a private vendetta. He will only fight like a Sikh or an Arab when he finds there is no other way of fighting.

The varied characteristics of the two races are well summed up by Oliver in his charming book, *Across the Border*. The Baluch, he says, is "essentially a nomad, good-looking, frank, with well cut features, black and well oiled flowing hair and beard, attired in a smock frock that is theoretically white, but never is washed save on the rare occasions when he goes to a durbar; and he is a general favourite. He is a bit of a buck, and when he finds himself passing into the sere and yellow he dyes his hair. It is not uncommon to find an old gentleman with eyebrows of deep black, and the tip of his beard gradually shading off through purple to red, to roots of pure white. His wife makes quite a toilet, and arranges her hair in many effective plaits, but any connection with soap and water would be voted by either as a mark of the worst effeminacy. He shares with the Pathán many of the virtues and vices peculiar to a wild and semi-civilised people, but in many respects he presents the most agreeable contrast. Both are given to hospitality, both ready to exact an eye for an eye, a life for a life, but the Baluch prefers to kill his enemy from the front and the Pathán from behind." To both "Allah is great and Mahomed is his prophet," but the Pathán is often a dangerous fanatic whilst the Baluch is perfectly willing to have his prayers said for him. As Ibbetson pithily puts it—"he has less of God in his head and less of the devil in his nature." There is a story of a Baluch who, asked why he did not keep the feast of the Ramzan, replied that he was excused, as his chief was keeping it for him. "What are you doing?" said another to a pious Mahomedan who was saying his prayers in the plains. "Praying in the fear of God," said the plainsman. "Come along to my hills," rejoined the Baluch, "where we don't fear anybody." Both have but dim perceptions of the difference between *meum* and *tuum*, preferring "the good old rule, the simple plan, that he should take who has the power, and he should keep who can."

The love of a Baluch for his horse has passed into a proverb all over the world. This again is an Arab instinct. If a Baluch cannot own a whole horse he will

Digitized by Google

become the proprietor of one leg or more, as the case may be, and claims an equivalent share in the use of the animal. Baluchis still prefer mares for their long rides over rough hills, although the original reason for this choice (the fact that mares are less inclined to lift up their voices and scream to their companions when it is desirable to preserve strict silence) has passed away with their opportunities for raiding; but I understand that this prejudice is fast disappearing. An Afghan would consider it beneath his dignity to ride a mare at all. His prejudices are in favour of the other sex.

Taking him for all in all our frontier Arab has much to recommend him. I have sat in durbar with Sir Robert Sandeman and watched with admiration the magnificent forms of the Mari and Bugti chiefs clothed in clean white, bearing themselves as princes in the land; and the contrast with the gaily clad and much bejewelled Brahui royalties of Kalat has been almost too striking. Courage and loyalty are what one would naturally expect in such splendid human setting—and courage and loyalty is exactly what Sandeman found, and what he, of all men, knew best how to appreciate.

DISCUSSION.

Dr. JOHN BEDDOE.—I should like to make a few remarks, from the point of view of a physical anthropologist, on the paper of the evening. It is interesting to learn that the author can give plentiful historical grounds for the presence of Arabs in Baluchistan, and that he finds in the moral character of some at least of the Baluchis indications of an Arab leaven. But I should much like to know whether he thinks that the physical aspect of these people is at all suggestive of Arab or Semitic descent. Their language, we know, is a Persian dialect, *i.e.*, it is Aryan, not Semitic. I am not one of those who attach very great importance to language as an evidence of blood and descent; but it does afford some *primâ facie* evidence. Now the Arab settlers in Makrân had certain advantages which might have availed to enable even a minority to perpetuate their language. They were conquerors and rulers; and their tongue was that of a proselytizing religion. With this last advantage, even a subject minority may succeed in imposing its language on its rulers; this the Slavs did on the Bulgarians, though, to judge from the physical type, the Bulgarian or Ugrian element was the more numerous. But the Arabs in Makrân failed. I suspect, therefore, that there is not much Arab blood there. The few photographs I have seen from Baluchistan have not given me the impression of belonging to Semites. They were those of soldiers, and the author tells us that the Kirds do not often enlist. If he could procure a few photographs of Kirds, or pure Baluchis, and of Brahuis, I think they would have considerable interest.

Mr. J. KENNEDY remarked that Sir T. Holdich's knowledge of Makrân is so extensive that any theory he may express with regard to the origin of the Baluchis will necessarily carry weight. Moreover, he is not alone in his belief that the Baluchi tribes have a large proportion of Arab blood. That theory appears to be mainly based in part upon the traditions of the clans, and in part upon physical resemblances. But I am not sure that it is borne out by history; and before

Digitized by Google

attacking an ethnological problem, it is always well to clear the ground if possible by a historical review. Now the general outlines of the ancient and mediæval history of Makrân are perfectly clear, however obscure the details. There are three distinct stages. The earliest stage is one of utter savagery. Nearchus found the coast inhabited by the Ichthyophagi, a race of men who lived on fish, built their houses of fish-bones, had little corn, few sheep or goats, and scooped shallow wells in the shingle for fresh water. The inland tribes knew something of agriculture, but lived chiefly on dates, used poisoned arrows, and fortified their villages. Commerce between India and Persia by way of Makrân appears to have been utterly unknown. Alexander the Great had local guides, and was accompanied by a number of the aborigines; but he completely lost his way, and took 60 days to cross the desert—a thing which could not have happened if caravan routes had been in existence. Nor does there appear to have been any commerce down to the first century B.C.; for finds of Græco-Bactrian coins in Makrân are extremely rare.

The advent of the Indo-Scythians in the first century B.C. marks the next stage in the history of the country, and the introduction of a higher civilisation. These Indo-Scythians are known as Sakas. They gave their name to Sakastene or Sejistân, and occupied the whole of Makrân and Sindh, forming a multitude of petty clans and kingdoms which were occasionally united under a single over-lord. These Sakas are supposed to have been of the same stock as the Parthians. Their names, Azes, Vonones, Spalirises, Pacores, etc., are similar to or identical with the Parthian; their head-dress is similar; their coin-types alike; and they use Pehlvi for their inscriptions. The Arsacid kings cultivated their friendship, and often obtained their assistance. The Sakas, on the other hand, must be carefully distinguished from the other great Indo-Scythic horde—the confederacy of the Yue-chi, in which the Kushâns were supreme. The Kushâns expelled the Sakas from Afghanistan and the Northern Punjab; and the ancestral enmity of Afghans and Baluchis was anticipated by the feuds of these Indo-Scythians nineteen centuries ago.

The Sakas were the first to open up regular communications between India and Persia by way of Mekran, and more than one Sagsanian monarch, Parvez the last among them, invaded India by this route. When the Arabs turned their attention to the conquest of India, their armies merely repeated what Persian armies had done before; and they had little difficulty in overrunning the country. But the country was uninviting; "water was scarce, the fruits were poor, and the robbers bold." The Arabs pressed forward to the conquest of Sindh—a much more difficult and protracted task. Arab chiefs of the purest blood led the invaders. and Hajjaj on one occasion despatched 6,000 Syrians from Aleppo. But the great mass of the invaders settled in Sindh. Mansura and half a dozen other great towns were founded by Arabs, while the bulk of the Syrians settled in Al Mahfuza. On the other hand, we do not read of any Arab settlements in Makrân or its neighbourhood, except at Kandahar. The difference is strikingly brought out by Ibu Haukal, who remarks that Arabic and Sindhian were spoken in Sindh, while in Makrân they used Persian and Mekranik. It is clear, I think, that while the Arab conquest made a profound impression upon Sindh, its effect on Makrân was comparatively slight. These facts have a considerable bearing on the origin of the

Digitized by Google

Baluchis. They are admittedly not aborigines like the Brahuis. The presumption, therefore, is that they are connected either with the Sakas or the Arabs. Their political constitution and their speech—a form of ancient Persian—connect them with the former. Moreover, if we do not regard them as representatives of the Sakas, the Sakas must have disappeared. The early Arab writers talk of Turks or Turcomans, by whom apparently Sakas are meant; and some modern travellers discover a resemblance between the Turcoman and the Baluchi clansman. The Arab settlements in Makrân were not extensive, nor was the country inviting. It is very probable that the Baluchi chiefs have a considerable amount of Arab blood in their veins, and they may often bear a striking resemblance to the Bedawin, although their traditions point to Syria. But how far can we judge of the clan by the chiefs? It seems to me more probable that the rank and file have preserved an unmixed strain, and it is among them that we must seek the solution of the problem.

Mr. W. CROOKE in the main agreed with the conclusions of Mr. J. Kennedy as to the origin of the Biluchis. He remarked that there can be little doubt that their name is of Sanskrit origin—a corruption of the term Mlechhha, applied to outcasts or offenders against Aryan customs. A small outlying colony of the tribe is found in the Muzaffarnagar district of the North-western Provinces, where they have an evil reputation as cattle thieves and swindlers. They are a turbulent, ill-conditioned class, who give much trouble to our police.

ORDINARY MEETING.

MARCH 14TH, 1899.

C. H. READ, Esq., F.S.A., *President, in the Chair.*

The Minutes of the last Meeting were read and signed.

The election of three Fellows was announced, viz.:—J. D. PAUL, Esq., F. L. GRIFFITH, Esq., and Mrs. M. A. HOBSON.

The PRESIDENT introduced Mr. FITZGERALD MARRIOTT, who proceeded to read his paper on "Secret Tribal Societies in West Africa."

This was replied to by the COUNT DE CARDI, who questioned some of Mr. Marriott's views; and a discussion was carried on by Miss KINGSLEY, Mr. T. J. ALLDRIDGE, Sir JOHN SMALMAN SMITH, and Mr. J. M. HARRIS.

Mr. MARRIOTT briefly replied, and the PRESIDENT congratulated the Meeting on having heard such a carefully prepared paper and such an instructive discussion.

A vote of thanks was passed to Mr. Marriott.

Digitized by Google

THE SECRET SOCIETIES OF WEST AFRICA.

By H. P. Fitzgerald Marriott.

[*Abstract.*]

Most of the so-called secret societies of West Africa are tribal and with them are bound up the traditions and customs of the people, so that their total extinction would be almost impossible, though modification appears in some cases to be desirable. They are in their origin merely developments of the tribe to which they belong.

Apart from the law-giving and mystically religious societies, there are two others which are not exactly tribal—one of which is the temporary or Poro association of Sierra Leone. The other comprises the murder or Leopard and Alligator Societies—which extend from Sierra Leone to the Niger, and possibly farther, and are found in many parts of West Africa. They are much feared and detested by respectable natives. The religious Poro Societies of Sierra Leone have been discussed in works by C. W. Heckethorn and the Poro and many others by Rev. J. A. Abayomi Cole.

The societies of the Gold Coast are harmless, secret religious fraternities and tribal institutions. Katahwiri (for men) in which the ceremony of clothing at a certain age plays an important part. It includes circumcision (*keteofo*) and the teaching of mystic folklore and dancing. Katahwiriba is a similar society for women. Nanám, "our ancestors," is another men's society, more mystic and kept more secret than the Katahwiri.

In the Niger territory the partly religious societies are known as Egbo or Igbọ, deriving their title from the country of that name, of which the original meaning is "tiger" or "leopard," implying that this part of the country was once infested by these animals, or it may refer to a family whose name was derived from that animal. The most important Egbo Society is that of Old Kalabar, where the native government is founded on it and the king and chiefs are members. Its head is the Abaw-Efik, a sort of high priest who receives his authority from the Egbo chiefs, and while he retains it no one is safe from his power unless he can pay him well. There are eleven grades, the entrance fee of which varies from seventy-five iron bars to four hundred brass rods. Miss Kingsley in a note informs the writer that "the Abaw-Efik is keeper of the 'Ndém Efik (the great (I)dém of Kalabar); but in the execution of his office he is subjected to so many restrictions, the violation of which the 'Ndém Efik punishes with death, that his office is not desired and is frequently vacant."

At Old Kalabar, on "Brass" Egbo day, a yellow flag is raised on the king's

Digitized by Google

house, and none but the privileged are allowed to walk abroad. A piece of yellow cotton nailed on any one's door implies the protection of "Brass" Egbo. When a man meets the 'Ndém of a higher grade of Egbo than that to which he belongs, he limps by humbly as if the sight had deprived him of strength. Every ninth day during an Egbo meeting, a man goes about the town disguised as a spirit, with leave to flog anyone he meets who is of a lower grade or who does not belong to the society. This is the 'Ndém who carries in his left hand a bunch of green leaves and in his right a great cow-hide whip. He wears a black vizard and his whole body is covered with bamboo matting. He always has a bell fastened to his side to announce his arrival. A chief with a similar bell is depicted in one of the Benin plaques.[1] In New Kalabar the Juju King is held in higher reverence than the Civil Chieftain.

Among the Ibibeo tribe we find various societies. The Uluga, "pig's nose," watch farms, act as councillors in palavers, execute people sentenced to death by impalement at cross-roads. If a wife runs away from her husband the society will restore her, and if she dares to abscond again her parents' house will be sacked or destroyed. They kill with a stone anyone caught stealing yams. They sacrifice animals over bodies of dead chieftains and bury chief and slaves with him. They do not permit girls to wear clothes till they are pregnant and have gone to live with their husbands.

The Ayaka summons the society to meet in the bush, when all who are not members have to close their houses and put out their fires. They have a form of trial by ordeal. Five women are brought from different villages to a king's house. Sasswood and the salamander lizard are beaten up with a little water in a mortar. The priest first drinks from the ordeal cup and then passes it to the accused, who all drink. They are then shut up, those who are innocent vomit; the guilty die and their bodies are cast into the bush. They protect children of dead witches and collect the debts of their parents by intimidating the debtors at night. They listen to what people are saying and threaten exposure if they do not pay a bribe. They drive herds of cattle through the town at night, blowing horns and making hideous noises. They are said to have the power of talking to a cocoanut tree, when all the fruit falls down, and they eat the contents without injuring the nuts. They are able to smell out anyone who watches their proceedings, when they duck him in streams and leave him up to his neck in mud. A man who underwent this punishment was unable to speak for a fortnight. No woman knows anything of these people. No one dares to give information on pain of impalement or providing a slave as a substitute. They are supposed to live in the sacred groves, where twins are thrown away, and lepers, those dying of small-pox, the deformed, and children dying before they cut their teeth are buried. No woman dares to cut firewood in the forests they occupy.

The Onyckolum compel a woman to marry, saying that if she refuses she will wed the great snake, Aké. In the last resort they force the parents to carry her

[1] *Journ. Anthrop. Inst.*, xxvii, Plate XX, Fig. 2.

Digitized by Google

to another town to find a husband. They act as jesters, and mock at all deformed people or ridicule thieves and gluttons in public. They are accompanied in their nightly parades by a dog with bells.

The 'Mbuike come out dressed in grass, led by a man dancing like a bear. They carry a bag filled with short hard-wood sticks and stones, with which they pelt anyone they meet.

Each Egbo Society has its own special idols, horned wooden masks, grass, bamboo or cocoanut matting, dresses, bells, and other strange objects, among which are black wooden rattles, shaped like hour glasses, open at both ends, and containing several wooden clappers. Some of the idols, when properly invoked, are supposed to be able to answer questions regarding stolen property and similar matters. In some the lower jaw is worked by a concealed cord. The lower jaws of some of the masks also move. The small brown masks and the coloured masks, on the authority of Mr. Eveleigh Smith, are worn during Egbo plays. Children can belong to it and wear masks. Women and outsiders cannot wear them. The white masks appear to be worn only by members of the first grade, and those black and horned by those fully initiated. Women, on pain of death, are not allowed to see the black masks. The meaning of the tattoo marks on the masks is not clear. Possibly they may be some tribal sign. According to Mr. Eveleigh Smith the Ibibio Egbo Society has only two grades, the lowest, as usual, being the initiatory stage. Their dress is a simple garment with sleeves and legs, into which the wearer enters through a hole in the chest. Round the ankles is a fringe made of fibres of the Raffia palm knotted together. The higher grade has dresses covered with palm-leaf which are very elaborate.

Higher again than the Egbo is the Idiong or Idion, which none but a member of the Egbo can join. According to Mr. Eveleigh Smith this fraternity is open to all, either slaves or freemen; but probably a slave could not attain the higher positions. The first stage is merely probationary and the fee is about 800 or 1,000 Manillas or circlet composed chiefly of iron and worth from 1*d.* to 1½*d.* After payment of the fee the candidate goes through a rite, namely, consisting of feasting and dancing and is given a ring or circlet of palm fibre which he wears on his head until he can afford to pay the fee for initiation into the higher grade. On attaining this he wears a larger ring covered with goat-skin. Various points projecting from the circlet indicate the rank of the officials of the society. If the ring is wantonly destroyed the member loses his rights and has to pay again for their restoration. There are society secrets which no member dare to divulge. The rules forbid lying, theft, adultery, and are faithfully observed. Women can join the order and then are raised to an equality with men; if they commit adultery no one will punish or reproach them.

All members of the society can travel without danger. It is said they have an inner sanctuary into which only the high priest is admitted. They also profess to be rain-makers, and offer fowls and goats before idols for this purpose. A European if accompanied by a friendly Idion man can travel anywhere in safety.

Digitized by Google

Human sacrifices are sometimes practised among the Ibibios at the funeral rites of their kings, when a new market is opened or the trade of a market needs improving. It is also done at the performance of a religious play called Aikon. The victim, who is a slave, may be of either sex, but a boy or girl is preferred to an adult. The victim is held down while the executioner beheads him with a sharp matchet, not with one but with several blows. Each person present is supposed to tap the head with a small knife. The skull is finally put in the King's Ju-ju house. This play is performed yearly at the yam digging season. The people wear red cotton caps which they dip in the blood of the victim.

At another play a large bamboo table is brought out, over which hangs a long cloth reaching the ground. On the table are placed little figures representing men and women. These are made to move about and dance like marionettes. The operator is a man concealed under the table. Figures are also placed in the house erected for the spirits of the dead. These houses are regarded as sacred, but they are allowed to decay under the influence of time and weather.

In a place far up the Kivo-Ibo river, close to Aru, is supposed to be a holy woman who knows everything and can utter oracles. Only two persons, generally litigants, can visit the place at the same time. The mysterious voice calls to one or the other to confess judgment. It has been said that the defeated party is supposed to be slain by the spirit; anyhow he never returns home, for if he did his friends would not recognise him and would treat him as an evil spirit. Attached to this place is said to be a sort of priesthood, called "Long Ju-ju men."

At Little Popo in Togoland is a secret society known as Afá, considered to be higher than Egbo. They pretend to a knowledge of some sort of occult science.

Nearly all these tribal societies oblige their initiates to undergo circumcision. This may be one of the reasons why Muhammadans often obtain membership. They have perhaps some connexion with the society known in Egypt as Siri, of which there are various developments in the Sudan and Senegambia, devoted to the study of occult science.

The writer ends by suggesting that the Colonial Governments might utilise some of these societies in the cause of law and order.

DISCUSSION.

The PRESIDENT, in proposing a vote of thanks to Mr. Marriott for his paper, said that he thought the information that had been laid before them was of great interest. It had not pretended to be more than, in the main, a compilation, and students were grateful to any one who would save their time in this way, by gathering into a compact form all the scattered papers in rare or out-of-the-way journals. Such work did not in any way interfere with original research, but rather helped it. Some of the criticisms they had heard were thus scarcely called for by anything that Mr. Marriott had stated. The verdict of the majority of the speakers, all of whom had considerable experience of West Africa, was in approval

Digitized by Google

of the paper they had listened to, and he himself thought that Mr. Marriott was entitled to their thanks for the exhaustive and laborious paper he had prepared.

Mr. EVELEIGH SMITH.—I have lived only six years on the West Coast of Africa, but during that period have gone a great deal amongst the natives of the Hibio tribe, and have studied carefully their two great secret societies, Egbo and Idieñ. I have very little to add beyond what Mr. Marriott has already stated in his paper, save that I can vouch for the accuracy of his remarks concerning those two societies. The masks and idols on the platform were carefully collected by the late Mr. Van de Poel and myself, and they are genuine ones. With regard to the large black masks belonging to the higher grade of Egbo, no woman is allowed so much as a glimpse at them, death being the penalty if any woman should look at them. There is a great deal to be found out about these societies, and it does not follow because a man has lived for many years on the coast that he knows everything concerning them, as one may live all his life amongst a savage tribe where great secret societies exist, and yet know nothing. It is only by going amongst the natives, and gathering details bit by bit, that any really valuable information can be obtained.

Sir JOHN SMALMAN SMITH said that the statements in Mr. Marriott's paper were gathered from many and various sources, but none apparently were the result of that personal experience and observation which were indispensable if conclusions of any value were to be based upon them. It was impossible to deal with such a paper in a short speech, but he took exception to the constant use of such words as "*fetiche*" and "*Ju-Ju*," which were of European origin and did not represent the native idea.

In the Yoruba country the word "*Oricha*," meaning "an object of religious worship, ceremony or usage," was always used by the native, and "*Olorum*" represented the supreme god, the all-powerful the glorious one, the source of life and of the souls of men. It is, however, only the inferior gods who concern themselves with the affairs of the earth and its inhabitants, and these include a vast number both good and evil in their influences.

The powerful secret societies which existed all over the Yoruba country were termed among the Egbos "*Ogboni*," and amongst the Jebu people "*Oshogbo*." Their chief objects were to conserve the Oricha, but actually they controlled the kings of the country, and decided trade disputes and family differences in the manner prescribed by native custom. The members used signs and symbols, the meaning of which was known only to the initiated.

These societies were powerful, but their methods were not of a character to commend themselves to civilised peoples, nor would it be decent, even if it were possible, to utilise them as a means of government. Such an idea could scarcely have emanated from any one acquainted with the principles and practices which prevailed among them.

The town of *Ifé*, or *Illé Ifé*, as it is termed, is the most sacred place in the Yoruba country. It is regarded as the cradle of the human race. From here Ifa, one of the greatest of the gods, set forth to teach the rest of the world wisdom and the knowledge of the future. Many most interesting beliefs were attached to Ifa, who was a beneficent Oricha, and was invariably consulted as to the future, both in great undertakings and in the every-day affairs of life.

Digitized by Google

It was much to be regretted that so few ethnologists had devoted any attention to this most interesting country.

Mr. T. J. ALLDRIDGE, F.R.G.S.—I was not aware that I should be called upon to take part in this discussion. I came this evening to listen to what I anticipated would be an interesting paper upon a somewhat abstruse subject, and I think we shall all agree that the lecturer has presented to us an instructive communication; and although Mr. Marriott has been unable from personal knowledge to give any lengthened practical experience upon the secret societies of West Africa, I venture to consider that by quoting from some of the best authorities he has done the next best thing to furnish us with information. My only reason for rising upon this occasion is that Mr. Marriott has referred to a part of the coast with which I have been associated for very many years—the Sherbro, the seat of the once notorious Human Leopard Society; and as possibly there may be some persons here to-night who may like to know something of that society's workings, I will briefly state some details in connection with it, although happily the remedial measures adopted by the Government about four years ago had been the means of practically putting a stop to these atrocious barbaric practices, and the recent native rebellion, followed by the naval and military punitive expeditions in the Imperri country with its water-ways, has, I hope and believe, thoroughly eradicated their organization and rendered this savagery a thing of the past. The Imperri was the great centre for this society. It does not appear that as an institution it was of any great age, possibly only some forty years or so, and I remember some twenty years back being told that it was then merely a family arrangement, the members working only amongst their own relatives, and that at the committee meetings of the society a relative of some member was selected and told off to be the next victim, and was subsequently waylaid and killed by some person in the guise of a leopard, who rushed upon the unfortunate and unsuspecting victim from behind, and planting a four-pronged knife of special make in the neck, separated the vertebra, causing in most instances instantaneous death. The body was then opened, and some of the internal parts were removed for the purpose of obtaining the fat which was considered to be necessary to preserve the magical powers of the country medicine, known as Borfima, with which members had to be anointed periodically. This Borfima was a highly prized fetich, and believed to be a panacea against all evil and to produce all good. The society after a time becoming too extensive to remain a family concern, it appears to have been changed into a public institution, that is, any victim could be taken from the general community, and we know, without a doubt, that the lives of many innocent persons were sacrificed in this manner. The *modus operandi* seemed to be that when a visitor appeared at any village, he was invited to partake of food, in which was mixed a small quantity of human flesh. The guest all unsuspectingly partook of the repast and afterwards was told that human flesh formed one of the component parts of the preparation, and that it was then necessary that he should join the society, which was invariably done. The initiation fee being the providing of a victim, it did not necessarily follow that the newly joined member should himself slaughter the victim; he need only furnish the victim, and there were persons who, upon payment, would carry out the murder. But happily, as I have stated, the persistent and effective measures adopted by the Government have been so

Digitized by Google

successful that I quite believe the Human Leopard Society is now simply a matter of history.

The Poro and Bundu and Bundu Devil are organisations of the utmost importance, and extend throughout the Mendi country, Sherbro, some 150 miles or more inland. They are institutions amongst the male and female communities respectively, but at this late hour I do not propose to enter into particulars respecting them, but for those interested I would remind them that in my paper to the Royal Geographical Society, in their Journal for August, 1894, these curious ceremonies are described.

LE COMTE DE CARDI.—I drew attention to the fact that Mr. Marriott's paper was mainly made up of copious extracts from the published accounts of others, and pointed out that, though he gave us several names of his authorities, the major part of the extracts that he read he most certainly *did not thumb-mark*, thus leaving the general public *to suppose that they* were from *his own* investigation. Knowing that Mr. Marriott had only been a few weeks in Western Africa and that he had never been in the district of the two secret societies of which he spoke the most, I pointed out that any well-wisher of the *Anthropological Journal* should jealously guard against anything being published in the *Journal of the Anthropological Institute* of which a part could be pointed to and denominated the work of a plagiarist. The only parts of the paper of Mr. Marriott that I could trace to Mr. Marriott's own labours were his deductions as to what use the secret tribal societies of West Africa might be to the British Government and his belief of what they taught. I said I disagreed with Mr. Marriott when he said "that the British Government could make use of these societies to assist in ruling the natives," my reason being that before any civilised government such as the British Government could make use of these societies they would have to be cleansed from their disgusting rites and terrible fetish oaths and practices. Once take away from them the fetish oaths and evil ceremonies, *then the fear* which the secret society engenders in the native mind would vanish and with it all respect for the laws of the secret society. Further, Mr. Marriott said, "Fetishism must not be confused with these societies. Spirit worship perhaps might be associated with them; but a mystic religion and belief in one God, a Creator from whom springs all life, and to whom death was but in some sort a return, was, he believed, the very inner secret of secrets; *more they did not teach.*" This assertion of Mr. Marriott's would lead any ordinary hearer to believe he, Mr. Marriott, knew all they did teach, for he says very distinctly, "*More they did not teach.*" (This and his former deductions were distinctly given out as his own—*no authority being quoted.*) This statement of his led me to think the study he had made of his subject was very superficial, because the veriest tyro in scientific research would have discovered that the teaching pointed to a species of Phallic worship, more than anything else.

Digitized by Google

ORDINARY MEETING.

MARCH 28TH, 1899.

C. H. READ, Esq., F.S.A., *President, in the Chair.*

The Minutes of the last Meeting were read and passed.

The election of Mrs. G. NEVITT BENNETT as Fellow of the Institute was announced.

The PRESIDENT introduced Mr. WM. CORNER, who proceeded to read his paper on "Mitla (State of Oaxaca, Mexico): A Study of its Ancient Ruins and Remains." This was illustrated by a good collection of lantern slides, maps, plans, drawings, and numerous antiquities that he had brought home.

He also exhibited a number of recent photographs of North American Indians, taken by Rinehart, Omaha, Neb., U.S.A.

The discussion that followed was contributed to by the PRESIDENT, Mr. A. P MAUDSLAY, Colonel G. E. CHURCH, Mr. LENNARD, Mr. A. L. LEWIS, and others, and a hearty vote of thanks was passed to Mr. Corner for his interesting paper.

Digitized by Google

Digitized by Google



FIG. 11.



FIG. 12.

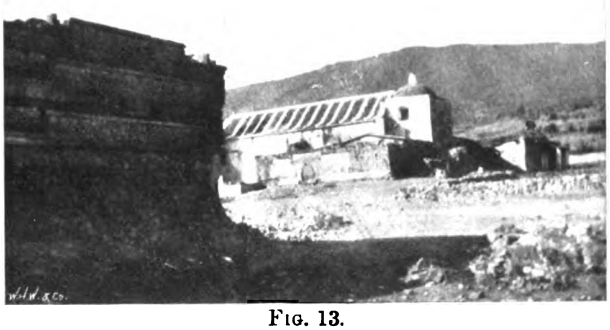


FIG. 13.

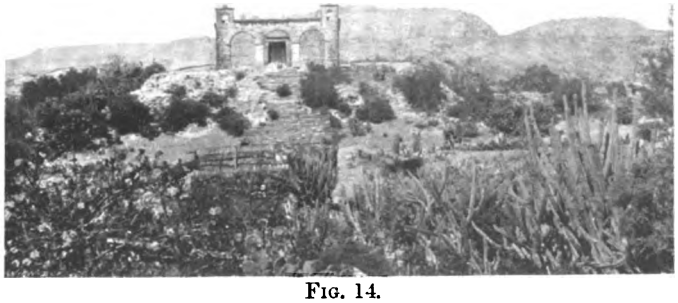


FIG. 14.

Digitized by Google

Digitized by Google



FIG. 15.

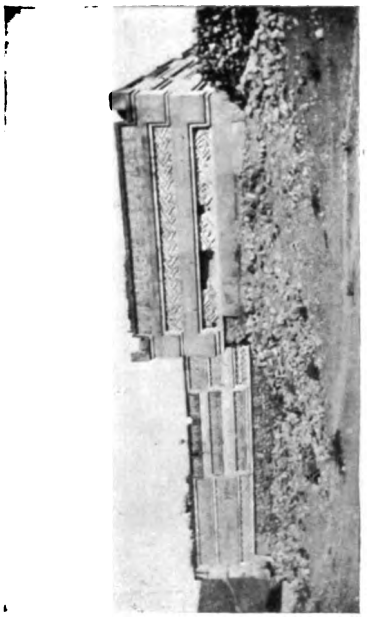


FIG. 16.



FIG. 17.

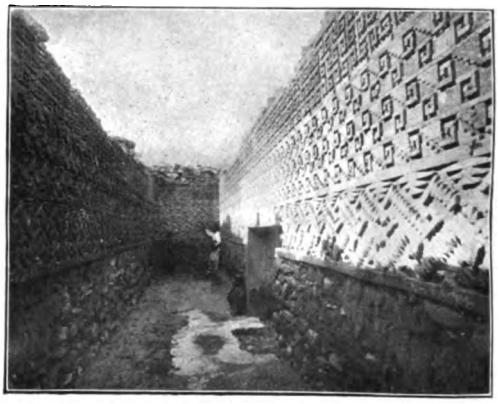


FIG. 19.



FIG. 18.



FIG. 20.

Digitized by Google

Digitized by Google

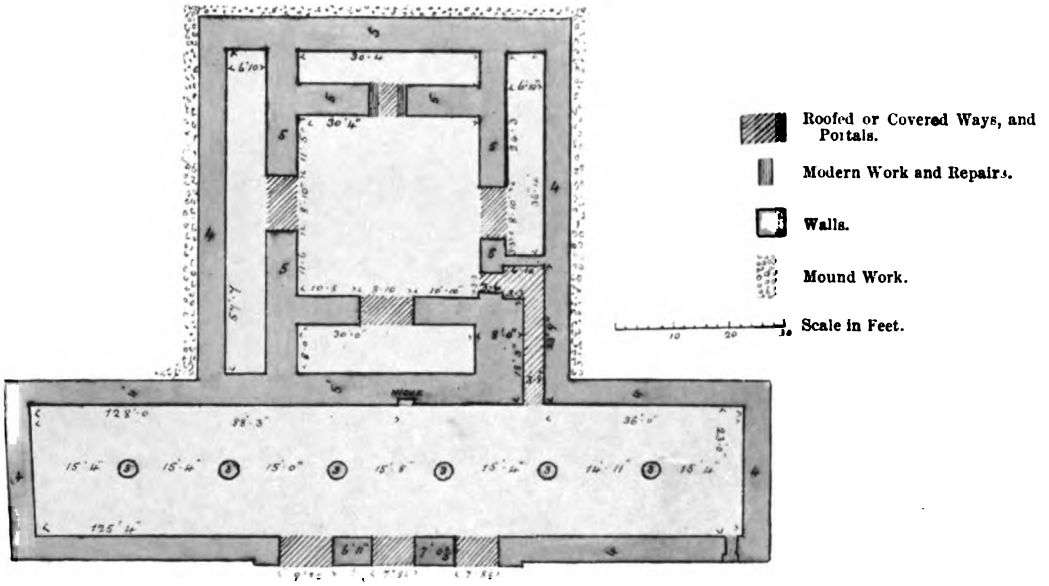


FIG. 21.

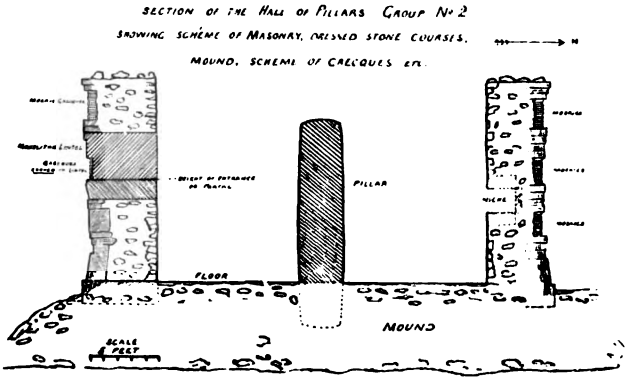


FIG. 22.

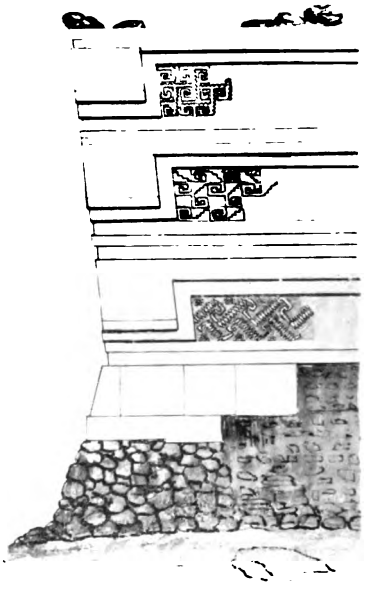


FIG. 23.

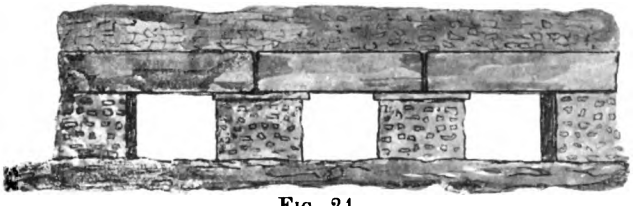


FIG. 24.

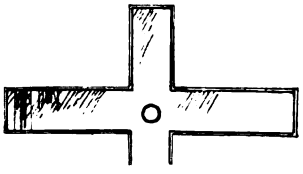


FIG. 25.

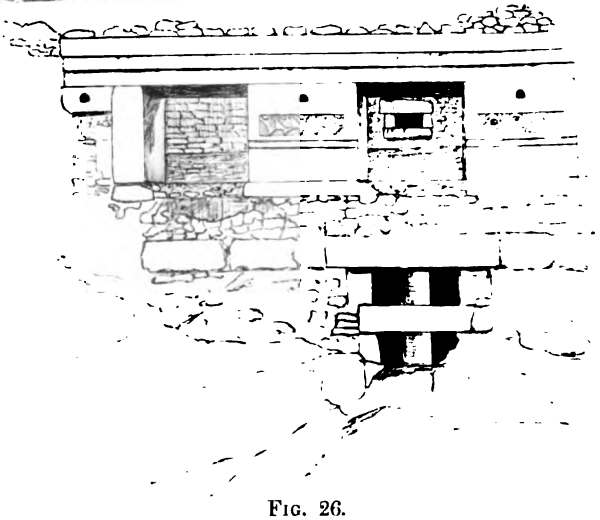


FIG. 26.

Digitized by Google

Digitized by Google

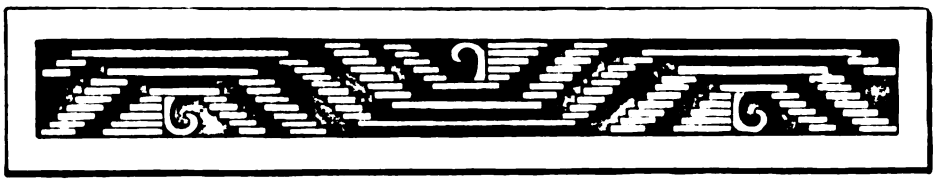


FIG. 27.



FIG. 28.

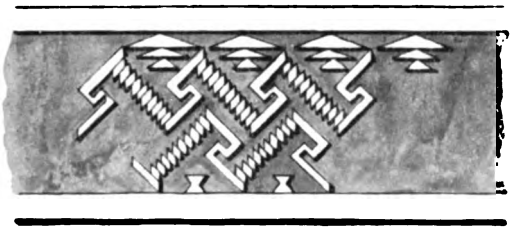
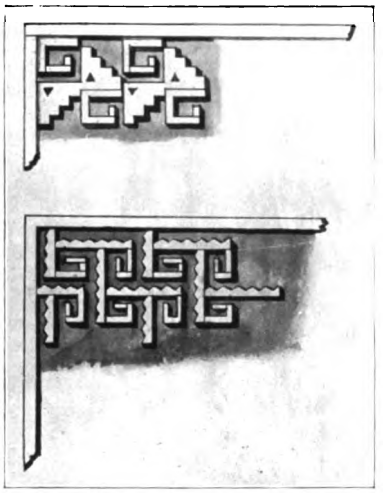


FIG. 29.

FIG. 30.

FIG. 31.



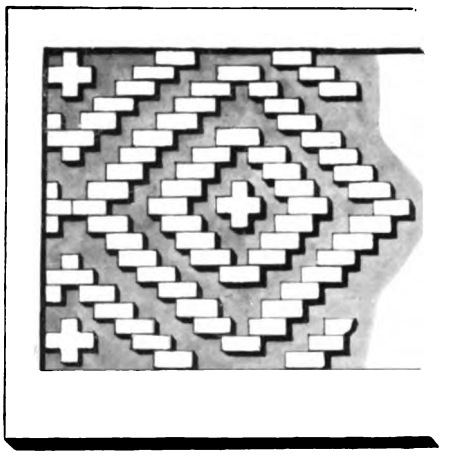


FIG. 32.

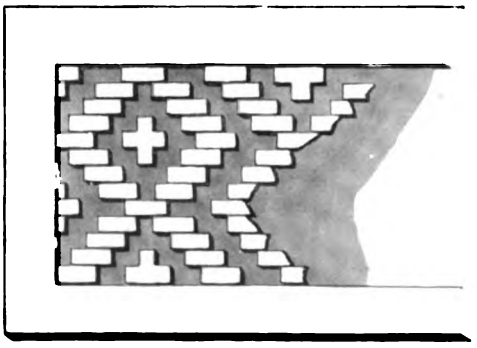


FIG. 33.

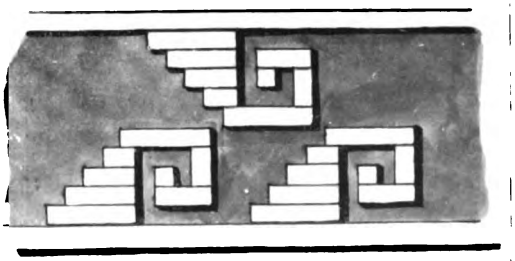


FIG. 34.

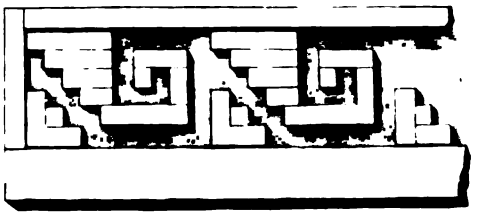


FIG. 35.



FIG. 36.

Digitized by Google

Digitized by Google

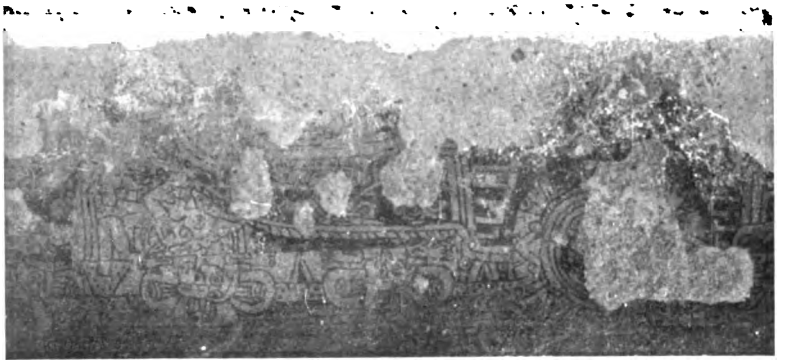


FIG. 37.

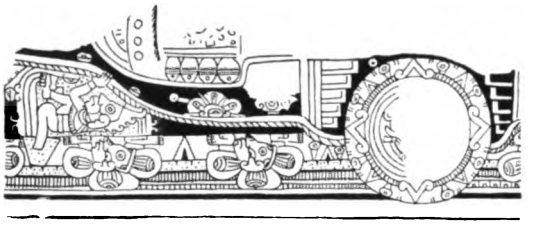


FIG. 38.
(Dr. Edward Seler.)



FIG. 39.

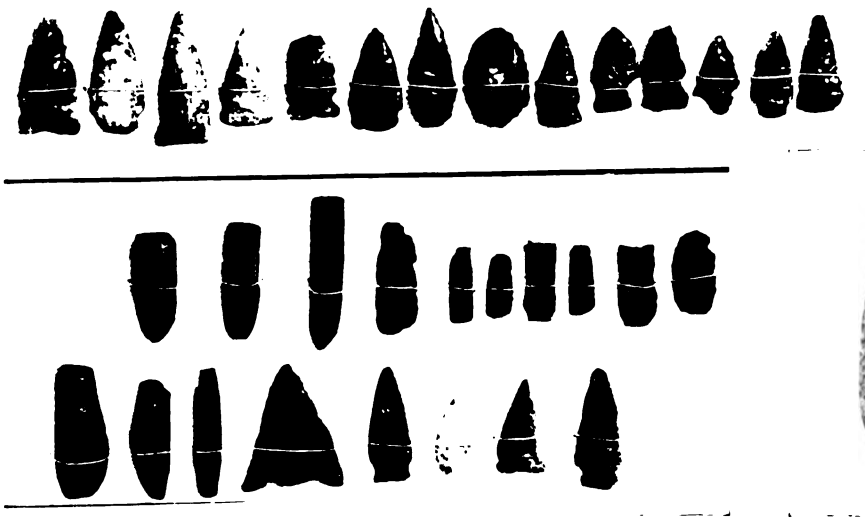


FIG. 40.



FIG. 41.

Digitized by Google

Digitized by Google

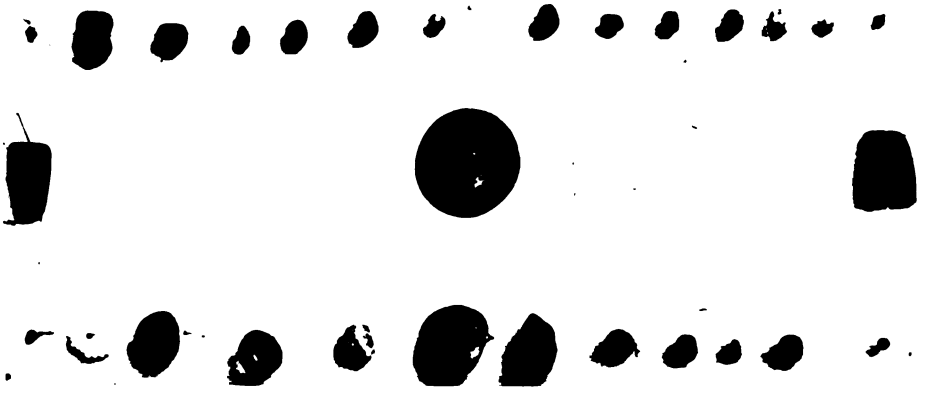


FIG. 42.

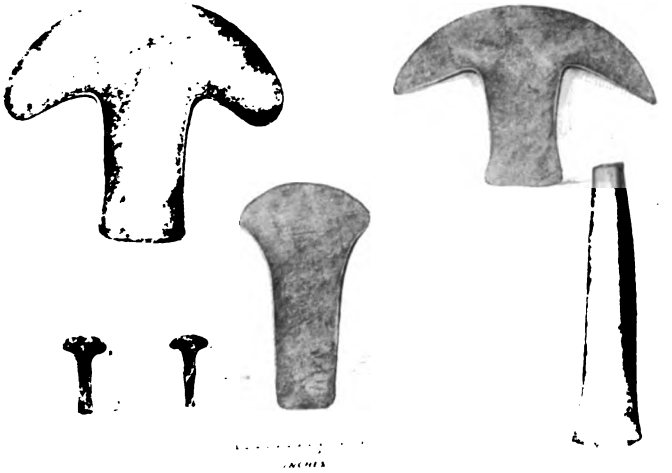


FIG. 44.



FIG. 43.

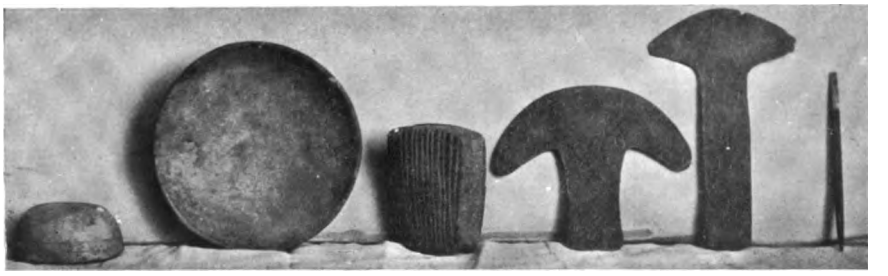


FIG. 45.



FIG. 46.

Digitized by Google

Digitized by Google



FIG. 47.



FIG. 48.



FIG. 49.



FIG. 50.

FIG. 51.



FIG. 52.



FIG. 53.





FIG. 54.



FIG. 55.



FIG. 56.

Digitized by Google

MITLA: AN ARCHÆOLOGICAL STUDY OF THE ANCIENT RUINS AND REMAINS IN THAT PUEBLO.

By William Corner.

[with plates i to vii.]

My communication deals almost exclusively with a description of the Tzapoteco remains and ruins at Mitla,[1] in the state of Oaxaca, Mexico. Upon the subject of the Tzapoteco race, the acknowledged builders of ancient Mitla, their origin, language, customs or beliefs, I scarcely touch. I attempt to explain neither the bearing these remains may have upon the questions of the art and culture of other aboriginal peoples of Mexico and Central America nor the general significance and relations of ancient Mitla. I feel that that is better left to those who have given a larger study to American Archæology. I am here to offer a fragment of evidence, derived from my own investigations, in regard to a branch of the art of the ancient Tzapoteco people. This must be borne in mind in considering the scope of the communication.

I exhibit maps, plans, and drawings, to which I ask your attention. An examination of them will enable you to understand better my exposition of the ruins, and that notation of the different groups and classes of them which I have adopted, and to which I shall constantly refer.

Most of us have a notion, not altogether a correct one, it is to be feared, of what is called the "Ancient Civilisation of Mexico or of the Aztecs." A glorified idea has been acquired, principally from Prescott's *Conquest of Mexico*, a work which, perhaps, is as much the creation of a mind of poetic and imaginative

[1] The name "Mitla" is syncopated from Miguitlan or Mictlan, probably by the Spaniard, with that indolent characteristic of his tongue which tends to soften all that seems harsh or to savour of trouble in pronunciation. The original "g" is an aspirate in Spanish. The word is not, of course, Spanish, but is presumably Nahuatl, and its meaning has doubtless something to say about the grave or death. By the Tzapoteco inhabitants the pueblo does not seem to be called Mitla, but Lyo-baa. "Mictlanteuctli (Lord of the land of the dead), the god of hell, which was a place of utter and eternal darkness" (*Anahuac*, by Dr. Tylor, p. 223). "Teoyaomiqui, god (or goddess) of war and death" (*Tour in Mexico*, by Mr. A. F. Bandelier). "Mictlan, signifying hell in this language" (Motolinía, also see Bandelier). It would be interesting to discover if "Mitla" or "Mictlan" is in any degree synonymous with the Tzapoteco Lyo-baa, or if it is a rough translation of it. Lyo-baa is variously interpreted, "Entrance to the grave" (Bandelier), "Place of woe" (Humboldt), "Place of sadness," and "House of the dead." It requires a knowledge of the two idioms, which the writer has not, to say. In accordance with such traditions as these names would seem to indicate, an ill-timed season or passing moods have caused more than one writer to describe the site of Mitla, in sympathy with its names, in gloomy language. The writer visited the pueblo in quite a different frame of mind, and found his way fall in not unpleasant places. It is true that the valley or basin of it is hemmed in by mountains on almost every hand, but he can bear witness that it is not always the abiding place of gloom.

Digitized by Google

temperament as the result of the knowledge, investigations, and researches of the trained historian. The romance of the subject colours this historian's whole theme. Since the publication of Dr. E. B. Tylor's admirable work, *Anahuac, or Mexico and the Mexicans Ancient and Modern*, in 1861, it has become more and more the fashion to regard the cultures of the native races as having important differences in degree, but that "the highest grade reached anywhere was a barbarism without iron or the alphabet, but in some respects simulating civilisation."[1] This attitude has so grown on later investigators and speculators that perhaps another extreme has been reached, and we find that a recent American author, who, being set the task of writing a popular account of the Mexican story, enters at the outset a gentle protest against this severe tendency in these terms :—"Empires and palaces, luxury and splendour, fill the accounts of the Spaniards, and imagination loves to adorn the halls of the Montezumas with the glories of an Oriental tale. Later explorers, with the fatal penetration of our time, destroy the splendid vision, reducing the emperor to a chieftain, the glittering retinue to a horde of savages, the magnificent capital of palaces to a pueblo of adobe. The discouraged enthusiast sees his magnificent civilisation, devoted to art, literature, and luxury, reduced to a few handfuls of pitiful Indians quarrelling with one another for supremacy, and sighs to think his sympathies may have been wasted on the sufferings of an Aztec sovereign dethroned by the invading Spaniard. Yet perseverance, after brushing away the sparkling cobwebs of exaggerated report, finds enough fact left to build up a respectable case for the early races of Mexico."[2]

What we are asked to accept as the inevitable conclusions of scientific research is one matter, and romance is another, and between the method of those who would severely discard all imagination in the work of research and reconstruction from material evidence, and those who have "allowed imagination to usurp the place of research and have written in the spirit of the novelist,"[3] there is, assuredly, a safe middle course. Within this particular circle of knowledge there are abandoned inevitable conclusions as well as proscribed romance. American archæology on the whole can hardly be approached without a little of imagination. Without at least a rushlight of it, prehistoric times of America are a ground for groping in. The difficulties that confront the student can scarcely be overestimated. He is not without picture writings, codices and glyphic records, yet he is without deciphered manuscript of any sort, unless the identification of a few carved symbols may be so classed. Even if he deciphered the most elaborate of the glyphs of which he has knowledge, they appear to be of so rudimentary a character as to give little hope that their record would cast much historic light on the riddles of Central America. He has to discount the exaggerated romance of conquerors and early pioneers and their points of view to establish. He has to deal with complications which contact with various European nations has produced, and persistent and

[1] Mr. John Fiske's introduction to Miss E. D. Proctor's *Song of the Ancient People.*
[2] *Mexico*, by Susan Hale.
[3] Sir John Lubbock's *Prehistoric Times*, 5th edition, p. 1.

Digitized by Google

inappropriate analogies to combat and discard. Monuments have been obliterated, remains and ruins have been rifled and despoiled, not only by relic and treasure hunters, but by ill equipped explorers. Many of the best primitive specimens and relics have been removed from their homes without adequate or authentic geographical and historic certificates. There has been extermination of innumerable tribes and removal of others. In the face of these and similar difficulties, an enormous amount of the best kind of modern work has recently been done, collections made and data and facts assembled, by trained men and expeditions under the Governments of the United States and Mexico, under United States Universities and Institutions, not to mention valuable European help. In spite of these labours American archæology is, as a science, unformed and unsystematised.

The interpretation of all that surrounds the ancient civilisations or cultures of America is vague and unprecise, of the meaning of its architecture, of the origin and development of the religion, ritual, customs, usages, early tradition, and modes of life. It is all so shrouded in mystery and the riddles are so fascinating that the most critically disposed explorers have been allured to theorise and guess. The glamour has far from disappeared, and we return with pleasure to Prescott's valuation. Popularly, indeed, all the old civilisations of the native Mexican races are generalised "Aztec," and the term "Aztec" is inclusive in the minds of most of us.

But the Aztecs, although holding the most important political position at the time of the Spanish Conquest, were not the only race which had reached the borders of civilisation.

The beautiful remains at Mitla,[1] in the Tzapoteco territory, are one of the notable proofs of the prevalence of an almost level advance amongst the other Mexican races. A journey of about 300 miles from the city of Mexico, which,

[1] Mr. A. F. Bandelier writes and quotes as follows, in regard to Mitla: " . . . In his relation of the flight of Quetzalcohuatl, Sahagun makes the singular remark that, after leaving Tecamachalco, Quetzalcohuatl 'made and built some houses underground, which are called Mientlancalco.' It is easy to recognise here a misprint for Mictlancalco, and the subterranean buildings agree very well with the architecture of Mitla, or Mictlan." Again, "It is singular that, while the Nahuatl language is useless in these places, the local names are all in that idiom. This territory was, at one time, invaded by the Mexicans and their confederates, and the latter thereafter gave their own appellatives to the places, communicating them to the Spaniards, through whom they became permanent." This remark refers more particularly to territory farther north than Oaxaca, but would seem to apply with equal force to some parts of the valley of Oaxaca. Again, "Mitla is an old pueblo. Fray Martin de Valencia visited it about 1533. There are notices of it in 1565 and 1574, at the Archivo General. It then had a Gobernador of its own, which shows that it was an autonomous community." Again, "The earliest mention of Mitla known to me is from the pen of Motolinía, who writes that when Fray Martin de Valencia went to Tehuantepec (about 1533) with some companions, 'they passed through a pueblo which is called Mictlan, signifying hell in this language, where they found some edifices more worth seeing than in any other parts of New Spain. Among them was a temple of the demon, and dwelling of its servants (*ministros*), very slightly, particularly one hall, made of something like lattice-work. The fabric was of stone, with many figures and shapes; it had many doorways, each one of three great stones, two at the sides and one at the top, all very thick and wide. In these quarters there was another hall containing round pillars,

Digitized by Google

it will be remembered, is the site of the ancient Aztec capital, in a south-easterly direction, brings us to Mitla. The small village, or pueblo, of St. Paul of Mitla is situated at a point about 35 or 40 miles south-east of the city of Oaxaca, in the state of Oaxaca, just 17° north latitude. The ancient remains known as the ruins of Mitla are in the northern precincts of the village.

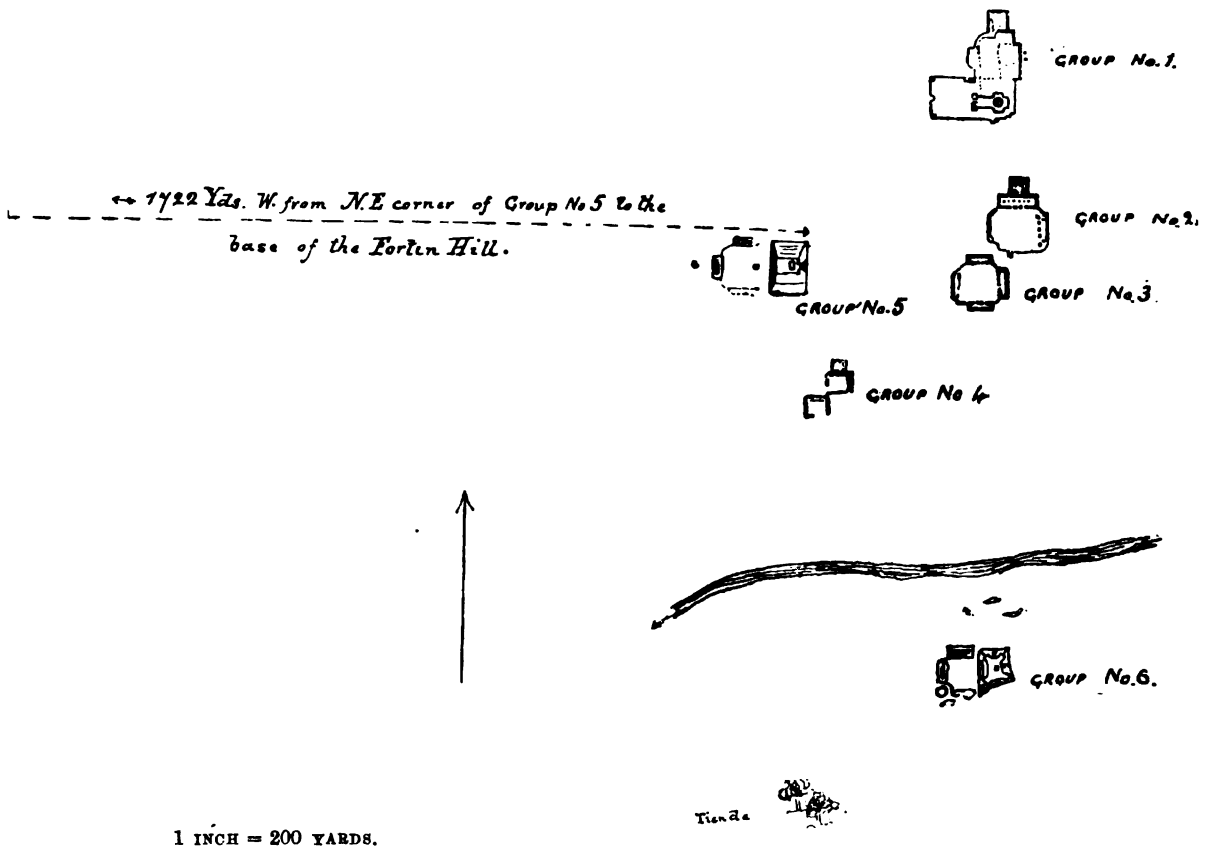


FIG. 1.

Group No. 1.—Palacio type, church or north group of ruins. Group No. 2.—Palacio type containing plaza, rooms, hall of pillars, and inclosed square or patio. Group No. 3.—Palacio type, containing plaza, rooms, small cross basement under its north room, with what is locally called "pillar of death," and contiguous with the south-west corner of Group No. 2. Group No. 4.—Palacio type, irregular group of squares having plazas and rooms. Group No. 5.—Teocalli type, including large teocalli and smaller truncated pyramidal mounds. Group No. 6.—Southern teocalli group, similar to Group No. 5. Group No. 7.—Fort on a hill a mile west of Group No. 5.

---

each one of a single piece, and so thick that two men could barely embrace one of them; their height might be 5 fathoms. Fray Martin said that on this coast people would be found handsomer and of greater ability than those of New Spain.' This statement has been copied since, with slight alterations, by the Franciscans Mendieta and Torquemada.

"We easily recognise in the above description the cluster B (Group No. 2) at Mitla, with the Hall of Columns." See report of *An Archæological Tour in Mexico, in* 1881, by A. F. Bandelier, pp. 263 and 264, 267, 277, 323.

Digitized by Google

Mitla, then, is, in a manner of speaking, a half-way house between Nahuat and Maya territories.

A traveller from the north arrives at Mitla by the Tlacolula road, and his entrance to the village is made at its south-western end. From the plaza of the modern settlement, where some very fine mountain fig trees spread wide branches, all the ruins, with the exception of the western fort on the hill, lie in a direction north and easterly of north. The site of Mitla is broken and irregular, and the general dip is from north to south. A small rugged watercourse, from east to west, divides the settlement, and one of the Teocalli groups, with groups of lesser mounds, are on the south side.

There are two very distinct classes of ruins in the immediate precincts of the pueblo of Mitla, the "Palacio," and the "Teocalli" or pyramidal mound of worship. There is one other class, a mile from the pueblo, which is merely a wall or fortification crowning a prominent and isolated acropolis-like hill just west of the settlement. The remains for which Mitla is rightly famous are those called by the natives "Los Palacios,"[1] or the Palaces. The most striking of these are Groups Nos. 2 and 3, situated rather centrally a little south of Group No. 1 and the pueblo church of St. Paul. The church[2] and its attached buildings are built into the south portion of Group No. 1 (Fig. 13, Plate I). The Padre, whose house is one of the attached buildings, was absent when I was in Mitla, and I failed to obtain a thorough examination of this group. The best I could do was to survey its outlines and those of the church and to climb over barriers and take such measurements as were accessible. These remains have been much cut up. The group on the whole more closely resembles in plan No. 4 than any other, and seemed to consist of a sequence of squares or small patios, probably three, surrounded by rooms of similar construction to those in other groups and connected by short passage-ways. The northern and eastern walls were in the best preservation, and they possess panels of interesting grecques, mostly similar to those in Groups Nos. 2 and 3, yet to be described. The construction of walls was also similar, but they were not on mounds. The lintel picture paintings, which are fragmentary, I was unable to obtain a sight of. I obtained, however, a photograph in Oaxaca of some of the Mitla paintings. (They occur only in Groups Nos. 1 and 4; for those in Group No. 4 see Figs. 37 and 38, Plate V.) The restorations (Fig. 2 and Fig. 38, Plate V) are by Dr. Edward Seler; I am indebted to Mr. Maudslay for kindly calling my attention to them. It will be noted that these paintings bear a marked resemblance to other ancient picture writings and paintings of the races of Mexico

[1] This is in a way a misnomer, for they are probably palaces in no sense except that they are very handsome structures—that is to say, they are not likely to have been merely residences for either a priesthood or for chieftains.

[2] In the church tower is hung a fine pure copper bell, dedicated and dated :—

"SANCTE PAVLE APOSTOLE ORA PRO NOBIS MAIO 26 DEL *AON* 1781."

This inscription is around the rim of the bell. There is an error in the transposition of the letters of the word "Año."

Digitized by Google

—the calendar circle, the grotesque, stunted and marked figures of humans, the mysterious signs, symbols, circles, dots, lines, and quarterings, all of which are more easily illustrated than described.

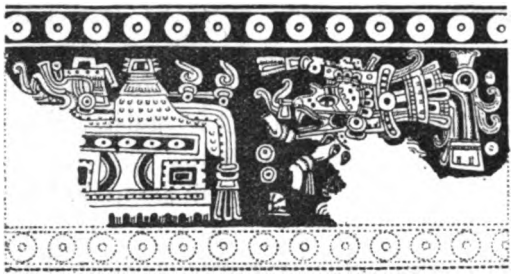


FIG. 2.
(After Dr. Seler.)

There are two cylindrical monolithic pillars supporting the Padre's porch, but if they rightly belong to this group or have been removed from Group No. 2 is a question. That they are not in their original position is certain. In other respects than these mentioned it will suffice to describe in detail Groups Nos. 2 and 3, which are by far the best preserved remains, and the class of structure has its chief characteristics in common in all the groups.

Group No. 2 lies a little to the south of the church group, and No. 3 is contiguous with the south-west corner of No. 2. No. 2 is the most famous, the most beautiful, and the best preserved of all the Mitla remains, and it will, for that reason, be more specifically described, and because it is a type of the others of the class. Its outline or shape is as follows:—A very beautiful and elaborately designed square building (Fig. 11, Plate I; Fig. 21, Plate III), 62½ feet square, encloses four rooms a passage-way and a small central patio or plaza. The south wall of this square is the north wall of an oblong room, which may be appropriately called the "Hall of Pillars" (Fig. 12, Plate I, and Figs. 17 and 18, Plate II, and Figs. 21 and 22, Plate III), because it possesses, still erect, six huge monolithic pillars. This hall or room projects east and west of the south side of the square. The square and hall form one compact unit (Fig. 16, Plate II) of Group No. 2, and entrance can be only made through the three separate portals or entrances, side by side, centrally situated in the south wall of the hall (Fig. 12, Plate I). This south side is confronted by an open plaza, which is apparently depressed below the level of the hall floor some 7 or 8 feet, the actual fact being that the buildings enclosing it are erected on mounds or terraces, which will be described. The plaza is 49 or 50 yards wide east and west, and about 41 yards north and south, the latter measurement cannot be given exactly, because the opposite (south) room is so entirely in ruins that only what seem to be the foundations of the outer or most southerly wall of this group can be traced, and to that outer point the measurement is 49 yards, and of course the unknown width of the south room must be deducted. Various opinions are held as to the existence of this south room, but I consider the evidence in favour of it. The east, west (and south) sides of the open plaza were bounded by solitary rooms resembling in shape and general design the Hall of Pillars, but of rather smaller dimensions. The west and south rooms are entirely in ruins, only some of the foundations being traceable; the east room had three central entrances or portals, and while the structure is ruined, there

Digitized by Google

are sufficient remains to show that its general design was similar to that of the Hall of Pillars, and it had pillars itself, two of them only remaining in place. It is not unreasonable to suppose that a certain symmetry in the group was observed, that the west and south rooms were of similar design.

Foundations:—No excavations seem to have been made for foundations. The ground is rocky, hard and solid, and the design of the architects seems rather to have been to raise low mounds of rough stone and adobe for foundations above ground (Fig. 22, Plate III), the floors of the rooms being from 6 to 8 feet above the plaza level. That these mounds were faced on the outside by fine friction-dressed stone there is no doubt, but the regular manner in which the foundations of the north square of this group have been stripped (Fig. 23, Plate III) indicates that it must have made a rare quarry for succeeding generations. For the filling in these mounds the builders used about an equal amount of adobe and rough stone.

Walls:—The filling of the walls was much the same as that of the foundation mounds. The stones seem rather more regular, and courses were perhaps better defined (Fig. 22, Plate III). Some explorers recognise the mud of the filling as mortar. I should say that it is simply a limey mud of the locality. It is not *made* mortar as we understand it. It is for the most part friable. No mud was used between the joints of dressed stones, which indicates that the builders did not regard it so much as a cementing power as an interstitial filler. Wherever the dressed stone for facing, moulding, or decoration is used, the dressing of stones whose surfaces are exposed is so accurate and fine that joints are barely perceptible. This, indeed, is one of the remarkable features of construction. However large or however small the stone, its dressing is done with equal care, precision, and nicety, and some of Mitla's stones are very large and heavy, and some, as in the grecques, are small.

Beginning at the north square, which is in a high state of preservation:—

Its corners (Fig. 11, Plate I, and Fig. 23, Plate III) are protected by three massive corner-stones built up of courses of exquisitely jointed and adjusted dressed stone. The exterior angles, formed by the walls of the square meeting the north wall of the Hall of Pillars, are similarly protected by angle-stones. The exterior face of each of the walls of the square has a slight overhang or outward batter, which is accentuated by the inward batter of the mound facing (Fig. 23, Plate III), and it is divided into nine oblong spaces (Fig. 11, Plate I) or rectangular parallelograms (about 2 feet by about 20 feet, upwards). These spaces are decorated by very beautiful grecques, framed, so to speak, by the successive continuous superincumbent courses of heavy dressed stone, which keep the small individual portions of the mosaics or grecques in place. The plain framework projects (and recedes) slightly, in courses over the elongated spaces of grecques. One course—the one nearest the grecque plate or space—passes in a continuous crank-like meander, not only alternately over and under the grecque spaces, but is so arranged that this meandering course passes underneath the slightly protruding

Digitized by Google

corner and angle blocks, which intensifies the outward batter of the walls at the corner.

The grecques are only mosaics in the sense that patterns are produced by a combination or arrangement of separate pieces of stone. The patterns are not produced by tint or colour on a flat surface, but by the raising in a relief of 1 or 1½ inch of a pattern in pieces of stone above a groundwork of depressed similar pieces. In Fig. 3 are indicated some of the surface shapes of the raised stone. Sometimes, but not frequently, the surface shape is not the same as a section of the root of the stone, and very occasionally an intricate form or a rudimentary curve is carved in a block and so inserted among the mosaic pieces. The vastly preponderating portion, however, is made up of the comparatively small individual stones. Sometimes, again, a huge lintel interrupts the course of the grecque spaces, and then the lintel is carved to imitate the mosaic pattern.

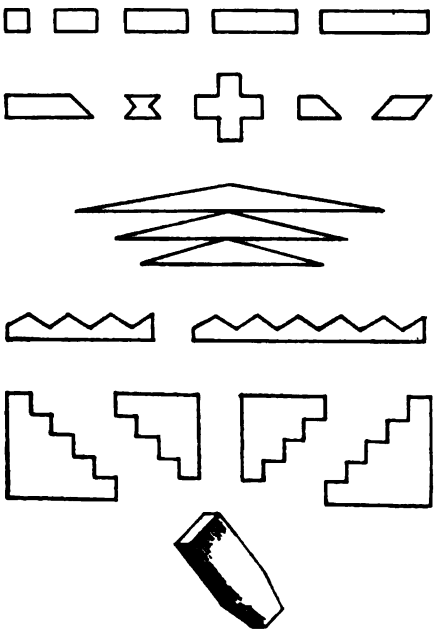


FIG. 3.

The patterns (Figs. 27 to 36, Plate IV) are always rhythmical, and they are designed with artistic skill. In each separate oblong space the same unit pattern is repeated to fill it, but seldom exactly the same patterned space is repeated on the same wall. The three horizontal courses of mosaic spaces encircle the walls of the whole buildings outside, and are only partially interrupted by the central portals, which overlook the plaza (Fig. 12, Plate I). The effect is very beautiful and very wonderful, and these decorations and the monolithic pillars and lintels are the distinctive characteristics of the Mitla remains. Without cement, without a true mortar, mostly by fitting and a heavy superincumbent weight, assisted by the imbedding of the ends in the filling of mud, these grecques have yet lasted for centuries. They are the more astonishing when it is considered with what crude tools the work was performed and apparently without previous models,[1] certainly without a knowledge of iron or a perception of exact measurements. The horizontal length or depth of the mosaic stones from their front surface to their imbedded ends varied from 3 or 4 inches to a foot or more. There are few loose

[1] There are at Palenque, Uxmal and elsewhere some mural ornaments resembling in form and somewhat in the manner of construction Figs. 34 and 35, Plate IV. These might, perhaps, be regarded as rudimental prototypes, but they are nowhere worked out with the precision and elaboration that distinguish the Mitla mosaics. Some of these may be noted in the beautiful illustrations of Mr. A. P. Maudslay's "Archæology," in the *Biologia Centrali Americana*, Part V, Plate III; Part VI, Plate XV; Part VII, Plate II.

Digitized by Google

stones to verify variations. Some were evidently pointed as if to facilitate driving in adjustment. Their material is a finely grained quartz trachyte. A specimen of it is on the table.

As may be seen in Plate IV, their designs or patterns are more easily illustrated than described. The Greek key in many variations, the diamond, the crank and the steps are largely used. There are few curves, and they are nowhere conspicuous. I remember only one rudimentary one in all this building, a solitary and simple form of ram's horn ornament in a pattern otherwise made up of graduated lengths of horizontal parallelograms of stone, Fig. 27, Plate IV, whose measurements are about 1¼ inches wide by from 4 inches or 5 inches to 2 feet or 3 feet long. The predominating surface shape is a narrow parallelogram of varying lengths, from 1½ inches to 2 feet, mostly lengths of from 3 inches to 8 inches. There are also notched and stepped parallelograms and triangles, etc. (Fig. 3). Mr. Maudslay recently called my attention to three other curves (Fig. 4) which are illustrated by Mr. W. H. Holmes in the very careful survey and examination of the remains which he made for the Field Columbian Museum, Chicago. Figs. 4, 5, 6, 7 are reprints from his drawings illustrating some characteristics of the grecque work which he noticed. Figs. 5 and 6 indicate what the writer himself noted, that in rare instances certain central curves and angle pattern joints are carved instead of being worked out mosaic-fashion. This elementary carving is also occasionally found in the simpler forms of stones (Fig. 7).

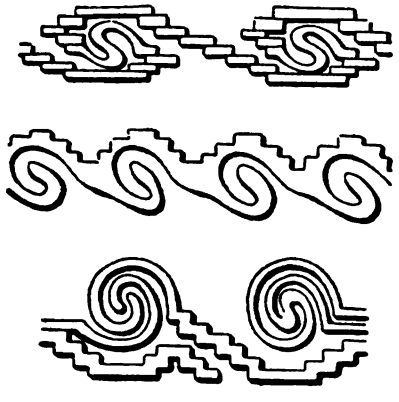


FIG. 4.
(After Mr. W. H. Holmes.)

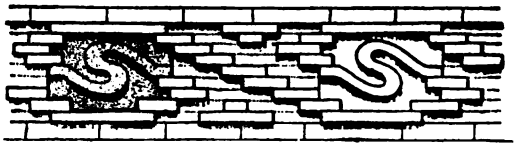


FIG. 5. (After Mr. W. H. Holmes.)

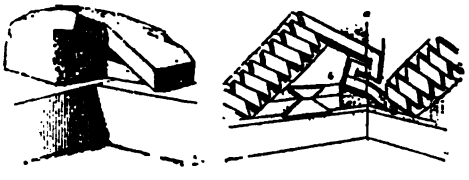


FIG. 6. (After Mr. W. H. Holmes.)

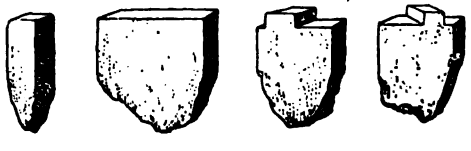


FIG. 7. (After Mr. W. H. Holmes.)

It is important to note the carving mentioned, in the lintels and in the few stones of the mosaic patterns, because it constitutes the only carving now existing at Mitla to indicate that the builders had any knowledge of the art. Of other

Digitized by Google

ornament than these geometric mosaics there is little, unless the chaste and sustained effect of the clean bandlike courses of dressed stone around the walls may be classed as ornament. It is in perfect taste, and is very fine. As to other ornament it *is* within possibility that some parts of the walls, perhaps as a dado in some of the rooms, were plastered and coated with a thin shell of hard plaster with a smooth, almost polished, surface. A specimen of such plaster, of a dark red colour, taken from the covered passage-way leading from the Hall of Pillars to the patio, lies on the table. The wall had here been protected from the seasons. It is reasonable to conjecture that some of the stripped walls were similarly embellished. The Hall of Pillars, for instance—its interior walls could not have been in the stripped state they now are (Fig. 18, Plate II). There is not a vestige of mosaic work or other ornamentation in it, although the other rooms in its neighbourhood are rendered very beautiful.

There is no trace of sculpture of any form of life whatsoever. The builders of Mitla could scarcely have been ignorant of this art, for most ancient graves in and about this valley and the valley of Oaxaca, on being opened, reveal carvings (Fig. 46, Plate VI) and engravings (Fig. 43,[1] Plate VI) in jadite and other stone and modelled clay effigies (Figs. 51, 52, 53,[2] 54, and 55,[3] photographed from the collection of Dr. Sologuren, of Oaxaca, and some of the pieces and fragments, of Figs. 48 and 49, from my own collections, see mask fragment of Fig. 48, and central stone effigies of Fig. 49, all on Plate VII).

Rooms.—There was no doubt a total of eight rooms, and a covered passage-way in Group No. 2 (Fig. 21, Plate III and Fig. 1).

In regard to size, the Hall of Pillars is the most imposing. It is (central measurement) 126½ feet long by 23 feet wide.[4] It has, running east and west, a middle line of six monolithic pillars (Fig. 17, Plate II). The cylindrical pillars have neither base, plinth, nor capital. They are of quartz trachyte weighing

[1] This Fig. 43 illustrates, by a drawing from the paper impressed copy of Fig. 42, an ancient Tzapoteco, polished, engraved, stone ornament, found in the valley of Oaxaca. The material is one of the varieties of hard, light, green stones, or jadites, which are known to the natives under the general term "chalchihuite" or "chalchihuitl." The slab is perforated or drilled at its edges for use as a neck ornament. The whole surface of the stone is polished or burnished, and the summit of the relief has been rendered flat, apparently by being ground on a very smooth flat stone. Size 4 inches by 3 inches and ¼ inch thick. It is in the collection of Dr. Sologuren, of the city of Oaxaca, Mexico. The green stone faces and deities or charms of Fig. 46, the writer's collection, are all drilled as for neck wear; they are here illustrated about one-half natural size.

[2] An article in *La Nature*, of the issue of August 19th, 1899, from the pen of M. le Mis. de Nadaillac, pleasantly but rather imaginatively describes some similar figures, some ancient earthen piping and other relics unearthed in Oaxaca mounds by Mr. M. H. Saville, of the American Museum of Natural History, New York.

[3] Fig. 56 is a photograph of a Tehuantepec Tzapoteco girl, and is here placed in juxtaposition to Fig. 55, as there seems to the writer to be a survival of the ancient type of head-dress.

[4] It must be noted that this is the middle measurement. The north side of the hall is something longer and the south side shorter, which seems to throw the western end of the room out of true.

Digitized by Google

146 lbs. to the cubic foot. Their weight, therefore, is about 4½ tons each, or one-third more if that proportion of the pillar is in the ground (Fig. 22, Plate III). As exposed they are 10 feet 10 inches high, but are suspected by the natives to have 3 or 4 feet buried in the floor. Their girth is 9 feet 2 inches, a yard from the floor; they are, very slightly, less at the top. They are all, as far as the eye allows, of equal proportions. The floor of this hall is laid down in irregular patches of cement (Fig. 18, Plate II), which have the decided appearance of being modern work.[1] It could not be ascertained, but it is highly probable that some government in the present century ordered the ruins to be cleared and kept in repair.[2] The passage-way entrance, which is just opposite the portals (Fig. 12, Plate I), is only 5 feet 7 inches at the lintel (Fig. 8), but in the passage-way the height is 18 inches more, but at its exit to the patio it is again much less.

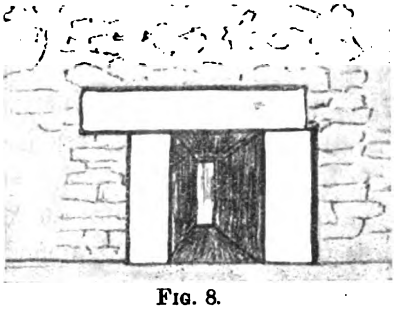


FIG. 8.

There is nothing particular, besides, to remark in this room except a niche or receptacle built midmost in the face of its north wall, westward of the passage-way entrance and opposite (about) the central portal. The bottom edge of this receptacle is 5 feet from the floor, its measurements are 2 feet 7½ inches long, 19½ inches high, and nearly 2 feet deep in the wall; its sides and top and bottom are formed of heavy square dressed stones. I am careful to mention this niche because there is one exactly similar to it, and in exactly similar position, relatively, in the north side of the north room of Group No. 3 (Fig. 26, Plate III). It would seem as though these receptacles served some peculiar and specific purpose, but what that purpose was it is impossible to say. In the jambs of the triple portals of the Hall of Pillars, on a line about level with the top of the portals, are found four shallow receptacles or niches (Fig. 12, Plate I) about the size of a man's skull. It is believed that these holes may have received the ends of some kind of poles or beams for portal awnings. Similar niches are found in similar positions on the jambs of the portals of the north room of Group 3 (Fig. 20, Plate II, and Fig. 26, Plate III).

There are no windows in these structures. Indeed the outer walls were pierced by no opening, embrasure, window, or door,[3] only the triple central

[1] There are traces here and there, in this group, of modern plastering, brickwork, and cement patching. There are also in one room to be found, on the tops of the walls, decayed traces or remnants of wooden beams, with every indication that they are the remains of a comparatively modern roof; a roof made, perhaps, within the last sixty years.

[2] Such an order seems now to be perpetual, for the remains are zealously watched by the local government, as well as it is possible to do without having regular watchmen.

[3] The window breach in the south face of the Hall of Pillars, east end, is modern vandal work; a poor attempt at retaining the sides of the breach has been made; at some time or another some native perhaps constructed a jacal in this corner of the hall. (Fig. 12, Plate I, and Fig. 21, Plate III.)

Digitized by Google

portals towards the plaza. The Hall of Pillars has three such portals in its south front, side by side centrally situated (Fig. 12, Plate I). They are rectangular. Their position and size well illustrate that irregularity of dimension which may be noted throughout the structures. The builders seem to have had no method of or correct perception of measurement. Even each of the tens of thousands of pieces of stone used in the mosaics seem to have been adjusted by trial or rule of thumb.

To continue with the rooms of this group—the patio or the *inclosed* square (Fig. 15, Plate II, and Fig. 21, Plate III) is 30 feet 4 inches east and west by 31 feet 9½ inches south and north. The four inner rooms of the square all front on the patio with rectangular entrances of slightly varying widths, the widest being 8 feet 10 inches, the height a little over 5 feet. The west room (Fig. 19, Plate II) runs the full length north and south of the west side of the square it is long and narrow, 57 feet 6 inches by 7 feet. It is the most strikingly beautiful of all the rooms at Mitla. It has three bands of grecques running horizontally without break around the room; the middle band is about 3 feet wide, and the upper and lower are somewhat narrower; each pattern is different, and they are divided on the walls by narrow courses of dressed stone. The upper portion of the walls are therefore covered with harmonious patterns of grecques in stone. The lower part of the wall is completely stripped of something, perhaps plaster of some kind, or it may be a dado of painted ornamentation.

And here a very curious and puzzling reflection arises. In this long room there is only one entrance, 5 feet high by 8 feet 10 inches wide; it is low down in a patio inclosed by high walls (Figs. 15 and 19, Plate II); it could not have admitted much light to this chamber—there is nothing very certain known about the roof of the room, but it is highly probable that it was completely roofed. To us, therefore, the futility of all this tremendous labour, expended on ornamentation that could be barely seen, seems great. We know that these builders did delight in ornamenting dark chambers.

The north and south rooms are much shorter; the north is curtailed at each end by the east and west rooms. The south is curtailed by the passage-way on its east end, and by the long west room on its west end. The east room is also curtailed by the passage-way (Fig. 8) on its south end. All these rooms and the patio sides of the walls were decorated in the same beautiful manner as the long west room, but they are not so well preserved (Figs. 15 and 19, Plate II).

As to the remaining large rooms of Group No. 2, they are in ruins and have no especial interest. The east is the least ruined—some of its larger stones are strewn around, and it still has two pillars as has been said.

Of roofs I have little to say, most that can be said must be purely conjectural. None of the rooms has a roof remaining[1] and it is a question, even, if the few beam

[1] There are no débris of roofs. The arch is entirely unknown, even the Maya, or false arch, was not used. A basement, yet to be described, has a roof of stone beams; and the passage-way of this group has a roof of similar construction. These, however, throw but little light on what the construction of the roofs was in the larger rooms.

Digitized by Google

sockets found at the top of the wall of the long room of the square are ancient, or if they were added at the instance of a protective order of a comparatively recent date. These have been recognized by some explorers as original work, and Mr. Holmes goes so far as to give a suggestion as to a probable construction of the roofs (Fig. 9), a combination of beams, rods, and light masonry.

The original heights of the walls may have been from 15 feet to 16 feet, the best preserved now stand, about, from 12 feet to 14 feet. For the thickness of the walls refer to Figs. 21 and 22, Plate III.

Other monoliths than those already described, the cylindrical pillars, are the huge lintels over the triple entrance portals, and their jambs. These lintels are easily seen, because they are of about equal thickness with the walls, in the stripped walls of the interior of the Hall of Pillars (Fig. 18, Plate II), and in the rooms of other groups (Fig. 20, Plate II, and Fig. 26, Plate III). Those of Group 3, east room, are the largest. One I measured was 19 feet 6 inches long by 4 feet 11 inches by 3 feet 9½ inches, and must weigh about twenty-three tons,[1] as its material has a specific gravity of 2·334 (Fig. 24, Plate III). There are others not much smaller.

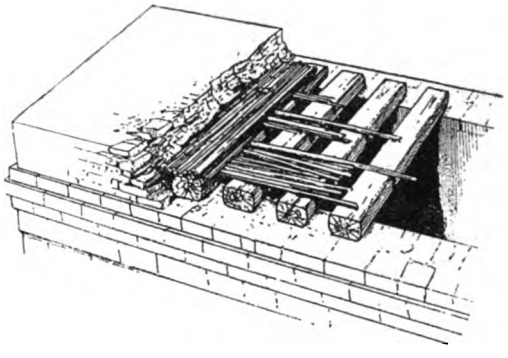


FIG. 9. (After Mr. W. H. Holmes.)

Group No. 3. Leaving Group No. 2 by the south-west corner of its main plaza Group No. 3 is close at hand, within a few yards, and is approached at its north-east corner. The general outline much resembles, in form, the outline of Group No. 2, except that it lacks an annex such as the north square, and consequently it also lacks an outlet similar to the passage-way of the Hall of Pillars of that group. Mounds, walls, rooms, and ornamentation too have the same construction. There is the same receptacle midmost in the north wall of its north room (Fig. 26, Plate III). The same triple rectangular portals (Fig. 20, Plate II, and Fig. 26, Plate III). Its east and west rooms were the more important in point of size. Its north room, for instance, was only one quarter the area of the Hall of Pillars, the north room of Group 2; its south room is a counterpart of the north, but the east room falls little short of the Hall of Pillars, and is in fair preservation. It has no pillars, but it has the largest monoliths in its portals that are found at Mitla. It was finely ornamented with panels of mosaics. Its corresponding flanking west room is in total ruins.

This Group No. 3 possesses, however, one especial point of interest peculiar to itself—the semi-subterranean chamber or basement (Fig. 20, Plate II, and Figs 25 and 26, Plate III) in the mound foundation, and underneath the portals of the

[1] That is to say, 363 cubic feet at 145⅞ lbs. = 23 tons, 16 cwt.

Digitized by Google

north room of the group. The chamber itself is in good preservation, but evidence as to the original entrance is obscure. Entrance is *now* made to it immediately underneath the central portal. It is a question if this was the original entrance. The present entrance seems to be a continuation on a higher level of a subterranean approach from the south, perhaps the centre of the plaza. There is a parallelopiped lintel over the present entrance, but there is also one about 2 feet lower in the foreground, and over the ruins of the approach. Upon entering, one is confronted by a cylindrical pillar 6 feet high, an assistance to the support of part of the roof. The chamber is in the form of a cross (Fig. 25, Plate III), and this pillar stands at the intersection of the galleries or recesses. Passing the pillar, there is a recess about 13⅔ feet, north and east and west there is a similar recess or gallery for 19 feet *each* way. These recesses vary in width somewhat, a little over 5 feet is the general measurement. Their height is 6 feet. The walls are decorated by oblong spaces of grecques of the same general character as those in the rooms above-ground, yet there must have always been total darkness in this chamber. The roof is formed of massive beams of stone. Among some ruins at the Hacienda Zaaxás about 2½ miles south-east from Mitla, a very similar chamber has been discovered.[1] It also is cruciform, but its panels of grecques are carved and coated, and not mosaics as those of Mitla.

The portals above this chamber entrance are fine specimens of the architecture

[1] The Mitla groups are, of course, the most important ancient remains of this part of the country or of the State of Oaxaca, but there are other minor groups and individual remains scattered in the neighbourhood of Mitla not to speak of the rather extensive groups resembling the Mitla remains—Gui-y-baa near the town of Tlacolula where the old trail south branches to Mitla. Mitla, it will be remembered, is Lyo-baa. The following are extracts from the letters of an American civil engineer, Mr. A. M. Steger, who was aware that the present writer had been interested in Mitla. They will help to illustrate the fact that the neighbouring country was once the home of a race of some culture, at least, a race far removed from the lower stratum of barbarism.

"About two miles and a half south-east of the ruins of Mitla is the Hacienda Zaaxás (mentioned as 'Saga' by Ober and others). Some twenty years ago there was discovered there a subterranean chamber in the form of a cross." (Probably a semi-subterranean basement in a mound as in Group No. 3.) "The house of the Hacienda had been built over the chamber, the builders not suspecting the presence of the latter. The walls of this cruciform chamber are made of huge stones profusely *carved* with grecques resembling those at Mitla, but they are not composed of small stones as at Mitla. One peculiarity of this carving is that it has on it a thin stucco or finish, similar to that we put on our own ceilings and walls. It is white and smooth, even burnished and shiny to-day, after hundreds of years of exposure to dampness naturally found in such a place. The tomb, for tomb it was, was very narrow, about 3 feet wide. It is 6 feet high and the arms about 15 to 20 feet each. Three skeletons, it is said, were found there when the room was discovered. It was found by a servant who saw phosphorescent light coming up through a crack.

"At another place in the mountains, about five miles east of Mitla, are found other similar subterranean structures and some remains, not extensive, but similar to other Mitla remains, all carved as grecques but no mosaics, that is no small stones.

"On the top of one of the mountains are found an unfinished structure and a quarry near by having unfinished dressed stones in it, evidently intended for the structure a few feet from it."

Digitized by Google

of Mitla. The huge lintels are uncarved and there is reason to believe they were decorated with paintings at one time. The jambs are very massive and the whole is certainly imposing in appearance. (Fig. 26, Plate III.)

Group No. 4. About 200 yards to the south-east of No. 3, the last of the palacio groups is reached. It is not necessary to enter into a detailed description of this group. It is much ruined. It resembles in scheme the church group, (No. 1), in that it was built upon the level ground with no mounds, and that it consisted of a sequence of squares. The squares in this group, though, did not pursue a north and south line as in Group 1, but the south square was placed to the westward of the other two (Fig. 1, Group 4). This group seems to have been used systematically as a quarry and only the weight of some of the lintels, in some parts, has prevented a further spoliation.

Group No. 5. Teocalli. (Fig. 1, Group 5.) Passing from Group 4, north about 125 yards, the south-east corner of the main pyramid, called Calvario, is reached. This group is of an entirely different type of erection to those just considered. On circling the group, a first casual view shows a large truncated pyramidal mound about 35 feet high and with a rectangular base and smaller rectangular summit, whose ends and sides are parallel with the ends and sides of Palacio Groups Nos. 2 and 3, which are now 225 yards to our eastward; that at the western side of this pyramid there is a level court, space or plaza bounded on the remaining three sides, west, north, and south, by oblong, low, truncated, pyramidal mounds. Upon more particular examination, although the lines are disintegrated by the weather and age and the slopes overgrown with brush, the observer is struck by the fact that no two faces of the pyramid are alike or have the same angles of inclination. The western side, which fronts the court, immediately shows to be an almost vertical two step descent from the top, the lower step being an almost perpendicular 15 feet. 41 feet from the centre of the base of this western face (west) out in the space or plaza is a large irregular shaped boulder 4 feet high and 6 to 8 feet through, with a fairly flat top; 135 feet further is the smaller mound of the western limit of the court and still further beyond (west of this), 65 feet, there is found another heavy boulder partly buried in the ground; its top is, roughly, an inclined plane about 9 feet by 6½ feet. Its weight would be at least 15 tons. These boulders have every appearance of being placed there to serve some use as table, platform, or altar. The smaller mounds are being fast obliterated. They were of adobe. Returning to the main pyramid; the mid portion of its eastern slope is occupied (30 feet at the base but lessening as ascent is made) by two flights of stairs or stone steps, 37 steps in all, 20 steps reach a wide step or platform 9 feet wide, and then 17 steps reach the door of the "Calvario" chapel on its summit; this is all modern. In spite of this rough usage and of the disintegration of this Teocalli there are evidences that it had a well conceived design and that it must have been at one time a really handsomely finished structure, doing credit to the other erections and not a mere shapeless mound. In the upper part, courses of oblong adobe bricks are seen, otherwise a

Digitized by Google

filling of adobe rubble and stone was used in its construction. How it was faced and finished or what occupied its summit is a question.

Group No. 6 (Fig. 1, Group 6). About 500 yards to the south-east of the pyramid group just described is another similar pyramid group. Group No. 6 resembles Group No. 5, in so far as it has a large main eastern pyramid with three smaller truncated pyramidal mounds inclosing a space or plaza beyond its western face; it is also similar in its material and manner of construction. Adobe bricks are not well defined in courses, and the design or outline seems to have been different and more complex. The base of the main pyramid is quadrilateral but not rectangular, measuring on its western side, which was, perhaps, its more important side, 152 feet, its north side but 92 feet, its east side 111 feet, its south 131 feet. Its summit seems to have been of peculiar shape, having small quadrilaterals at its own corners; its own corners being cut off by them. The mean measurements of its summit would be about 60 feet by 80 feet. The summit and different levels in this pyramid were paved with a very hard and durable cement finished with a smooth plaster painted red; a sample of the plaster is on the table. Only vestiges of these cement platforms remain, but large masses of it are lying here and there, and some of it *in situ*. The form of this pyramid must have been quite complex for it is apparent that these platforms were on different levels on each face of the pyramid, and each face had a different angle of ascent. I cannot think it was a symmetrical structure. The height of this pyramid is 30 feet, and ascent seems to have been made in one, two and three steps on different sides or faces. It is now much overgrown with scrub and brush. On its summit there remain evidences of some small structure, I believe of some comparatively modern building.

Of the three truncated pyramidal mounds the south and west are merely irregular heaps of débris or rubble covered with brush and prickly scrub. The exact size of the plaza cannot, therefore, be given. East and west it was a little over 100 feet. North and south it was perhaps 130 feet. Somewhat north-east of the centre of the plaza are square-sided remains of adobe in large slabs. Whether this is a modern building of mound remains or a ruined ancient structure is doubtful. The north mound is in better preservation, and seems to have been much the larger of the side mounds; it is 86½ feet east and west, and 42½ feet north and south. It has on its summit, which is 39 feet long east and west, and rather narrow, some badly ruined remains of oblong adobe rooms which are partitioned but seem to have been windowless and doorless. This completes the description of Mitla proper.

Group No. 7 (Fig. 10).[1] There is, however, one other interesting remain that must be examined, the rough fortifications crowning the top of the acropolis-like hill west of the main Mitla ruins. If we return to the western pyramid Group

[1] The outlines and contours of Fig. 10 are not scientifically exact, as the writer lacked suitable instruments for this class of survey. They are as nearly accurate as careful drawing and many measurements could make them.

Digitized by Google

No. 5, and measure from the north-east corner of the Teocalli, in line with the north side of the Teocalli, to a point at the base of the hill just below the north extremity of the double walled entrance, the distance is 1,722 yards, 38 yards less than a mile. The slope of the hill at this point is about 35° and up to the wall is approximately 330 yards. The circumference of the base of the hill, which is ovoid, is about 1½ miles, but this was not measured. The crown of the hill is at its north end. On the south side especially and on the south-east side the slope is comparatively gradual. On the south side the only obstacles to an easy ascent are the very numerous large boulders. Around towards the north it begins to be precipitous, and on the north-west and west the hill is a formidable-looking fortress; the perpendicular cliff which rises out of the plain below is fully 600 or 700 feet high.

Around the south and south-east sides only, therefore, did the ancient fortifiers deem it pregnable to such a degree as to require a double wall to defend the crown. Here, too the wall is built much higher. The double portion is in the form of an L, an enclosing angle, and the entrance at the outer wall is at a different point to the entrance at the inner wall. The height and strength of the wall is made proportionate to the danger it was estimated it might be exposed to. Where the hill is precipitous and high the wall is low and insignificant, not more than 5 feet or 6 feet thick. At vulnerable points the wall is higher, up to nearly 20 feet high, and stronger, with massive and big stones, and its thickness fully 10 feet. The course of the wall takes advantage of all natural helps towards strength, such as gullies, notches in the cliffs, or juttings out of the crown, so that the wall zigzags and turns with many meanderings.

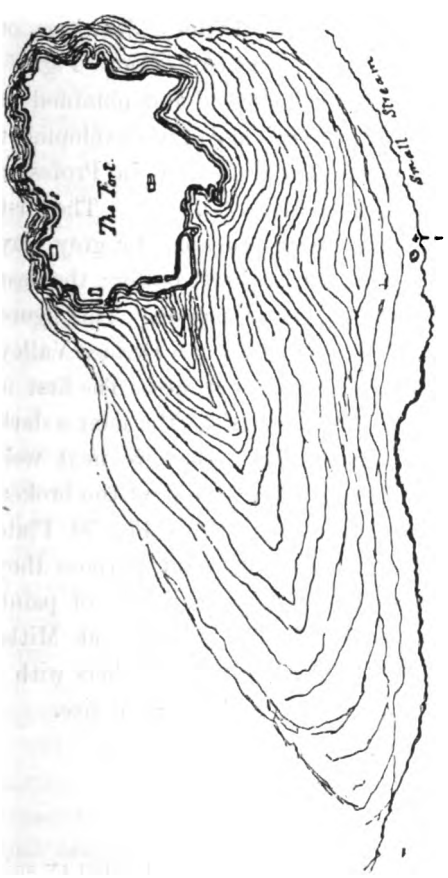


Fig. 10.

The enclosure is very rough and uneven, and by reason of its irregularity of outline only an approximate idea of the size of the enclosure can be given. It is

Digitized by Google

about 12 acres. The double walled L shape enclosure is about 110 yards long and about 30 feet wide, varying. This includes both legs of the L.

The adobe structures in this enclosure were probably shelters. The principal one is just within and to the north-west of the double walled portion. It is on some of the higher ground and can be plainly seen from the main Mitla groups. Some scraps of old pottery and clay casts are to be found for the seeking. One at least of the great boulders within walls has, scooped out on its top, a well formed bowl about 2 feet in diameter. Fig. 39, Plate V, is a reproduction of a rough pencil sketch of this hill and fort from a point easterly of them.

It remains but to speak of those relics not already mentioned in my communication. Fig. 40, Plate V, is a collection of arrow-heads and cores, mostly of obsidian, from Mitla and the Valley of Oaxaca. Fig. 41, Plate V, represents stone lance-heads in Dr. Sologuren's collection, Oaxaca. The scale shows them to be of large size. Fig. 42, Plate VI, besides the paper impressed copy, already described, shows the various forms of green and grey stone beads found and obtained at Mitla. Fig. 44, Plate VI, shows one copper chisel, and, besides, drawings of flanged copper axe currency of various sizes in Dr. Sologuren's collection. Fig. 45, Plate VI, shows two specimens of the same currency that I found and obtained in Mitla pueblo. Descriptions of this peculiar kind of currency and of its development from an article of real value to a symbol of value may be found in Professor William Ridgeway's recent edition of his *Origin of Metallic Currency*. The first article on this Fig. 45 is probably a grinder of some kind; the second a grey clay plate typical of the ancient pottery; the third probably a bark beater; the last a light copper chisel of peculiar, almost modern type, yet of copper. This figure is about one-seventh natural size. Fig. 47, Plate VII, are Mitla and Oaxaca Valley implements and two small axe-shaped ornaments, all of green stones. The first is an axe-head of a type rather foreign, I should say, to this district; the next a dark green stone hammer; the next a dark green stone chisel; the two next well formed green stone axes; the next a light axe and hammer; the next the broken tip of a chisel or axe; all these are about one-fifth natural size. Fig. 50, Plate VII, illustrates a little baked clay bowl. I do not know for what purpose they were used. It has been suggested that they were for holding small dabs of paint. I found them in the rooms of the ruins and around the buildings at Mitla. Most of them are rudely ornamented, some with triple points and others with a meandering snake. They are illustrated at about one-fourth the natural size.

My visit to Mitla was in the autumn of 1891.

DISCUSSION.

After congratulating Mr. Corner on his interesting paper, Mr. MAUDSLAY said that the peculiar mosaic ornament of Mitla appeared to be confined to Oaxaca, and was not, so far as he knew, ever met with in the northern part of Mexico, nor in the buildings in the neighbourhood of the Rio Usumacinta, but it again made its appearance in the ruins found in the north of Yucatan.

Digitized by Google

After noticing the comfortable old method of classing everything in Mexico not easily intelligible as the work of the Toltecs, Mr. Maudslay compared Dr. Brinton's depreciation of that people with Mr. Payne's statement that the Toltecs were the originators of Maya culture. Both writers, he suggested, may have placed too much reliance on arguments based on language and tradition, and an actual examination of the ancient remains must decide the difference between them.

Mr. Maudslay then discussed the position of the Mexican and Maya races at the time of the Spanish invasion, and taking the Isthmus of Tehuantepec as a dividing line, noted the overlapping of the Nalma races on the Pacific side as far as Nicaragua, and the existence of a Maya people, the Huastecas of the Rio Panuco, on the western side of the line. After referring to the Spanish descriptions of Mexican buildings and noting the uncertain origin of such buildings as those at Cholula and Teotihuacan, he described some of the ruins found to the east of Tehuantepec, contrasting the remains of the Maya-Quiché towns, such as Utatlan, Iximché, and Chacujal, which were living towns at the time of the Spanish invasion, with the great ruins in the valleys of the Usumacinta and Motagua rivers, such as Copan, Palenque, and Menché, which he believed to have been abandoned and lost to sight long before the Spaniards arrived on the scene. Turning to the north of Yucatan, it was, he said, much more difficult to ascertain which of the great groups of ruins had been definitely abandoned before the Spanish invasion, but with regard to Chichén Itzá, which was the only ruin in Yucatan which he had personally examined with much care, he placed very little reliance in the story that the Spaniards had found it a living city, and was driven to the conclusion that it had been deserted by its inhabitants some time before their arrival, although its ancient shrines were still held in reverence and probably served as places of pilgrimage.

Although in no way competent to speak on the difficult subject of American traditions, the frequent assertion of the tendency of migration from north to south and the Toltec origin of American culture could not fail to impress him. If there were formerly a race of cultured people in Mexico associated with the name Toltec (= builders), who were driven out of the country by the incursion of Nahuatl hordes, he could well believe not only that they very considerably modified the rude culture and arts of their conquerors in Mexico, but also that in their new homes to the east of Tehuantepec they became the founders of Palenque and Copan, but in this case the Toltecs must have been a Maya and not a Nahuatl race, and this would bring us into conflict with the early Spanish writers, who assert that the Toltecs spoke a Nahuatl language.

On the other hand, if the Toltec theory were abandoned, and Cholula and Teotihuacan were admitted to be the work of Nahuatl tribes, then we seem to be driven to credit a spontaneous origin of Maya culture in the land where the great Maya remains are now found. For his own part he would gladly welcome evidence that the Toltecs and the Mayas were the same people—a peaceful race who, after spreading over Mexico, were driven by the invading Nahuatls from that country to Central America, where they made still further progress in civilisation, marked by the development of the peculiar script with which their monuments and the walls of their temples are covered; that later on they suffered defeat at

Digitized by Google

the hands of their enemies, and were forced to abandon the great cities on the Motagua and Usumacinta, and seek safety in the north of Yucatan.

At Copan and Palenque no weapons of war are to be seen depicted on the carved stone. At Chichén Itzá every man is drawn as a warrior with atlatl and spears in his hands. Defeat and migration not only forced the Mayas to become a warlike people, but it had a marked effect on their art. The buildings of Yucatan were larger and more pretentious than those to the south, but the delicacy of the carving had vanished, and over all is an indefinable Nalma flavour. It is, however, in these buildings of Northern Yucatan that the stone mosaic work of which Mr. Corner had given such an excellent account was again conspicuous, but it had lost the simplicity of form which characterised the designs at Mitla. It seemed to him worth consideration whether the same cause which had effected the abandonment of Palenque and Copan had not acted also at Mitla, and that Northern Yucatan had become the refuge of more than one defeated race. Indeed, at Chichén Itzá there were evidences which could not be ignored of a third race, but one of the Maya stock.

It is generally admitted that the Huastecas, a people inhabiting the valley of the Rio Panuco (a river which flows into the Gulf of Mexico at Tonupico), belong to the Maya stock. Dr. Brinton, although he will not admit the word Toltec to be a tribal designation, says of the Huastecas that they may be regarded as one of the tribes left behind in the general migration southwards. The term Toltec, he says, was probably applied to the small town of Tula, north of the Valley of Mexico. Mr. Maudslay pointed out that this town of Tula was situated on the head waters of the Rio Panuco, and that the ruins which had been found there confirmed the correctness of the account given by Padre Sahagun of the temple at Tula dedicated to Quetzalcoatl, which was supported by columns in the form of rattlesnakes, with the head of the snake at the base and the rattle at the summit. Mr. Maudslay then showed some photographs of similar columns from buildings at Chichén Itzá, and suggested that the peculiar form of column may have been carried by the Huastecas and their neighbours from the mouth of the Rio Panuco across the gulf to the north of Yucatan, and that this would account for the form not occurring anywhere in Mexico to the south of Tula. Such a migration, or some close commercial connection between Yucatan and the Rio Panuco, might partly account for the Nahuatl flavour of the sculptures in Chichén Itzá, for the Huastecas who were left behind in Mexico for so many years must have been greatly influenced by their powerful Nalma neighbours by the time they again came into connection with the other branch of their race. It also seems possible that a migration across the gulf from the Rio Panuco to Yucatan, carrying with it the art of Tula, may have revived and become mixed with the earlier traditions of that great exodus which originally carried the building race from their old homes in Mexico to the east of the Isthmus of Tehuantepec.

Colonel GEORGE EARL CHURCH.—Unexpectedly called upon, at this late hour to comment on Mr. Corner's interesting and very instructive paper, I scarcely know how to crowd into a few words the numberless thoughts which arise regarding the people who left to our wonderment the ruins of Mitla. Unfortunately, the student of tribal and racial development in the New World, prior to its discovery, always has to grope in a darkened field for historic fact;

Digitized by Google

and even what little truth he can fish from the turbid wave of Spanish conquest and domination is not always satisfactory. That several similar phases of so-called indigenous civilisation sprang up in Mexico and Central America long prior to the Spanish conquest we have evidences in the numerous groups of vast and imposing ruins, the hieroglyphic riddles of which we hope are being solved by our friend Mr. Maudslay, whose valuable remarks on the paper we have been listening to have preceded mine. One of his observations was, "There is evidence that Mexico was always open to invasions from the north." I make no doubt that such invasions were numerous and at times irresistible.

Failing in quest of historic fact or substantial tradition, one is thrown back upon the general knowledge which has been garnered from other fields regarding the rise of man from the savage to the barbaric status, and then his upward struggle to civilisation; and if to this we add what we have learned of the traces which he has left behind him in Mexico and Central America, we may form some idea of the habits, customs and government of the people who, perhaps for a long period of centuries prior to the Spanish invasion, were evolving that growth towards civilisation which their European conquerors so mercilessly obliterated. The food supplies indigenous to Mexico, notably maize, caused the formation of agricultural communities, the most powerful of which had its habitat in Anahuac, and ultimately, by its growth, wealth and power, dominated all the outlying, poorer and weaker tribes. The result was the constitution of a kind of feudal system which readily lent itself to extension southward, until it included a greater part of all the present Central American states and the establishment therein of petty princes or of feudal lords, who enslaved all the weak tribes and forced them to build the gigantic defensive and religious edifices the ruins of which are now so attractive to explorers. A land so filled with wealth, comparative comfort and abundant food supplies offered the same inducements to the hunting hordes of nomad, savage Athapascans and Sioux, who occupied the country to the west and north-west of the Mississippi river, as the smiling fields of Lombardy presented to the migrating masses of hungry barbarians who looked down upon them through the passes of the Alps in the early centuries of our era. The result in Mexico was similar; invasion followed invasion, pressed on by still hungrier hordes from the rear, giving the land no rest. It is a curious fact that these conditions have ruled even until our day. When Cortez invaded Mexico the Ilaxcaltecs made common cause with him against their exacting masters the Aztecs, for which service the Spaniards conceded to them special *fueros* or privileges. Towards the end of the sixteenth century, a large part of the tribe were entrusted with the defence of the northern frontier of Mexico, the main body being stationed near San Luis Potosi with outposts in Coabuila, against the ceaseless savage inroads from the north. Their chief told me, in 1867, that their *fueros* had been respected by the Mexican Government since the independence of the country from Spain. Throughout the Spanish rule the tribes from the north still raided southward, especially the Comanches and Apaches, and desolated province after province. In 1866 I was in Mexico, and while riding, with two companions and four servants, from Monterey to Chihuahua, we happened to strike the line of march of a powerful body of Apache savages who were laying waste north-eastern Durango. We had a three-days' running

Digitized by Google

fight, during which period of time the Apaches killed 126 peaceable Mexicans along our route.

If, even during the whole period of Spanish rule in Mexico, the country was considered a land of promise and plunder for the more northern races, how much more so it must have been in Toltec, Maya and Aztec days, and how certainly these people in turn, under pressure from the north, must have had their racial expansion towards the south, and have overrun, conquered and feudalised the weaker, disjointed Central American tribes and forced them into servitude, to create wealth and comfort for their barbarous taskmasters and build those edifices, examples of which have been shown us this evening, and which are the silent and deserted symbols of serfdom.

ORDINARY MEETING.

APRIL 25TH, 1899.

WM. GOWLAND, F.C.S., Esq., *in the Chair.*

The Minutes of the last Meeting were read and passed.

The CHAIRMAN introduced LE COMTE C. DE CARDI, who proceeded to read his paper on "Ju-Ju Laws and Customs of the Niger Delta." This was illustrated by lantern slides and a collection of objects from West Africa.

Mr. T. J. ALLDRIDGE also exhibited a series of lantern slides of views in the colony of Sierra Leone and the Protectorate.

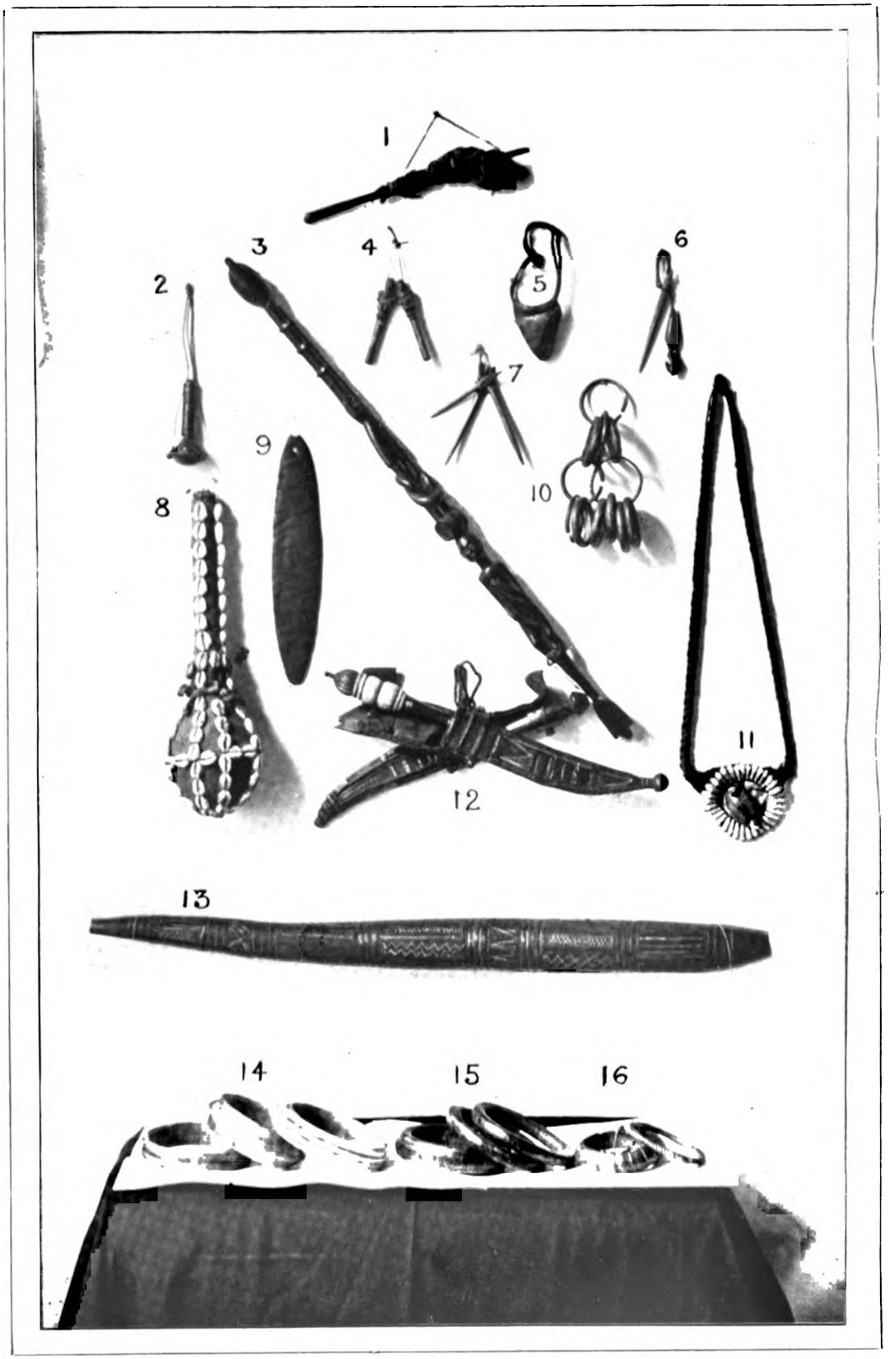
The CHAIRMAN invited discussion on the excellent paper of Comte de Cardi and the very interesting description of his slides given by Mr. Alldridge.

Miss KINGSLEY handed in her notes on some portions of the Count's paper, and Mrs. FRENCH SHELDON, Mr. R. B. HOLT, Colonel R. C. TEMPLE, Rev. H. N. HUTCHINSON, Dr. BENNETT, and others continued the discussion.

The Lecturer replied to many of the questions asked, and the CHAIRMAN closed the proceedings with a vote of thanks to Comte de Cardi and to Mr. Alldridge for their valuable contributions to the study of West African life.

Digitized by Google

Digitized by Google



Digitized by Google

Digitized by Google



Digitized by Google

JU-JU LAWS AND CUSTOMS IN THE NIGER DELTA.

By Le Comte C. N. de Cardi.[1]

[with plates viii and ix.]

Before I commence my paper I would like to impress upon my audience that I am neither an anthropologist nor an ethnologist in the scientific meaning of those terms. I am simply a man who has visited Western Africa on many occasions and resided there a considerable length of time. During my visits I have collected a number of facts about the negro people of Western Africa, and I willingly describe them to the best of my ability, so that real anthropologists and ethnologists can make use of my notes for the better understanding of the human race in general, and the negro race in particular.

Ju-Juism.—I use this term in preference to Fetishism when speaking of the religion of the inhabitants of the Niger Delta, because the word *Ju-Ju* is usually made use of by the people of the Delta who are most in touch with Europeans.

During my many years' residence in Western Africa, principally in the Niger Delta, I have had many long and to me very interesting conversations with the Ju-Ju priests, many of whom I have found to be most intelligent men, though other travellers and writers have generally described these men in a very different manner; in most cases describing them as hideous looking and degraded monsters in human form.

One of the most intelligent Ju-Ju men I ever met with was a very old man named *Quākery* the Ju-Ju King of New Calabar, who ranked above the King in all purely native palavers, religious or civil, his opinion always carrying great weight. This man went farther in his explanations of native customs to me than any others with whom I came in contact, pointing out to me the great assistance Ju-Ju was in ruling the country. "For example," said he, "suppose your house was broken into and robbed, and you went to the King of my country and complained, he could not find out who had robbed you if the thieves had not been seen by some of the townspeople who were willing to give information to him. The King would do his best to find them out by sending messengers round to all his chiefs that you had been robbed, and that they must see if any of their people were the culprits; but that order would have little effect with the bad characters of the town, because it emanated from the King, who is a man like themselves, and from whom they would steal if they got the chance. But if I sent round a notice that, if the thieves did not immediately bring me the stolen articles my Ju-Ju

[1] Some portions of this paper were read before the British Association for the Advancement of Science at Bristol, September 7–14th, 1898.

Digitized by Google

would cause them (the thieves) to swell up and burst, you would see how quickly they would come to me and deliver up the stolen goods."

To further illustrate the good uses of Ju-Ju, my friend Quākery continued by saying, "During the many years you have been in my country have you ever seen a native woman put her foot on board a white man's ship?" I replied that as a matter of fact I never had. He then went on to tell me that "many, many years ago when the white men first came to his country native women had been allowed to go on board the white traders' ships, but that this custom had led to many serious troubles, and it had been decided by the former kings and chiefs that the Ju-Ju should make a solemn law to the effect that in future no native woman should be allowed to go on board a white trader's ship," and this law was never broken up to my last visit to New Calabar so far as I know, though advanced ideas were beginning to undermine the power of the Ju-Ju King. The above law concerning women I only met with in New Calabar.

Having described some of the uses of ju-juism I will now describe some of the abuses. In the hinterland of the Niger Delta is to be found the Ibo or Eboe tribe, whose country extends from the Yoruba borderland on the west, to the Ibibio country on the east. The Ibo or Eboe people have almost identical forms and customs of ju-juism with the coast tribes; this is not to be wondered at as the latter are mostly offshoots from the great Ibo or Eboe family.

In the Ibo country is found Long Ju-Ju, the abode of the most powerful Ju-Ju in this part of the country. In 1896 Major A. C. Leonard of the Niger Coast Protectorate Service, succeeded in getting to the town of Bendé, a town supposed to be situated within about thirty miles of the Great Fetish or the Long Ju-Ju of the coast tribes. I mention this fact as I consider Major Leonard's journey to be a great achievement, and that it will eventually lead to immense results commercially; also it will be the means at no distant date of giving to the world some very interesting and curious information about the practices of the Ju-Ju priests of this mysterious stronghold of native religion.

This is the great oracle of all the tribes dwelling in the Niger Delta; to it all family disputes are referred, and its decision is recognised as final; it is also appealed to, to decide the guilt or innocence in cases where a man of position has been accused of murder, witchcraft or poisoning.

The Long Ju-Ju was appealed to in olden days by tribes dwelling as far away as Lagos, and even some distance to the westward of that place; at the present day natives dwelling in the neighbourhood of Lagos still consult this oracle.

Human sacrifices are not made to this Ju-Ju after the manner of the sacrificial rights practised in Ashanti, Dahomey, and Benin. Still a certain amount of slaughtering of human beings goes on at the Long Ju-Ju to this day, for when two men go to Long Ju-Ju for the settlement of any dispute between them, it is customary for the losing party to be destroyed by its power; but in many cases to my certain knowledge the priests have found it much more remunerative to sell the losing litigant into slavery, for I have met with

Digitized by Google

and conversed with men whom I have known to have visited the Long Ju-Ju, and who were supposed to have been killed by it. Whenever I have spoken to these men they never expressed a desire to return to their own country, with one exception; all the others being satisfied that their own people would never acknowledge they were anything else but spirits. The one exception was a man that I picked up in Old Calabar, having known him well in his own country before he went to Long Ju-Ju. I tried all I could to get his people to receive him back amongst them, but when I told them that I had actually got him on board my ship, then lying a few miles from their town, the whole populace seemed to rise as one man, and I was soon surrounded by a howling mob of infuriated savages, who were only appeased by my promising to take the man away from their river the next morning. On my return I found that none of the natives would come on board my ship, and on inquiry from the head Ju-Ju man of the town, I found that they considered the ship defiled by my having had the spirit of a man from Long Ju-Ju on board. As this took place long before the advent of the British Protectorate there was only one thing to be done, and that was to make a suitable present to the Ju-Ju King and get him to come on board my ship and make ju-ju: this he did, and then declared my ship free from all the evil effects of the malignant spirit I had had on board. But the King of the country was not going without his share of the plunder, so I had to make him a suitable present also, and invite him to breakfast on board, so that by his presence his people might see that all fear of evil consequences was at an end, as both the spiritual and temporal rulers of the country had visited my vessel.

This case of defilement reminds me that amongst these people, and especially amongst the *Ibos* and the *Ibibios*, anyone touching a corpse is defiled, and must go through a purification. The earth from a grave also defiles.

Many of the funeral customs of the Delta natives are curious and interesting; for instance, the wives and female mourners for a person of distinction must sit on the floor of the room where the person died, no seat being allowed them. They are not permitted to wash until the allotted time of mourning is over, which in some tribes continues for upwards of two weeks, nor are they allowed to change their apparel during this time. They must also, especially the wives, shave their heads.

Another curious custom observed by many of the Delta tribes is that of preparing a monster feast to be eaten after the interment of a chief or man of any distinction. To this feast are invited all the principal men of the town, and in the case of a coast town any white traders who may be in the country. At these feasts all the best crockery and glassware of the defunct is ostentatiously displayed and crowded on to the dinner table at the commencement of the repast; but an observant guest would notice that the attendants, once the guests are seated, commence as opportunity offers to replace every plate, dish, and glass, by the most common article of the same kind they can find in the house. The reason for this is that custom decrees that every article used at one of these dinners must be broken up and destroyed.

Digitized by Google

The yearly festival of father-making, practised more or less by all the pagan tribes of Western Africa, is very strictly observed by the natives of the Niger Delta. It is to this worship of ancestors that the West African mostly owes his bad character for human sacrifices, for this custom and the funeral custom of despatching a number of dead chief's wives and slaves with the defunct to wait upon him in the next world are the chief occasions when human sacrifices are made.

The custom of annually sacrificing a number of slaves at a chief's father-making to take messages from the living to the dead would mean in a town of 5,000 to 6,000 inhabitants a yearly sacrifice of at least sixty souls, but this estimate would be largely exceeded in a city like Benin. Incorrigible thieves, murderers, and other malefactors were generally reserved for this purpose, but when the supply of these ran short, slaves would be purchased for the occasion, or a special raid on some neighbouring people would be organised.

There are certain other sacrifices such as the Bonnymen's sacrifice to the protecting spirit of the river, to whom a sacrifice was at one time annually made of a very light copper-coloured slave girl. These girls were always procured from a tribe of Ibos or Eboes inhabiting a country away in the hinterland of New Calabar. Some writers have reported these as Albinos; this is not the case. This custom of propitiating the river deity by the sacrifice of a copper-coloured girl, in some rivers an Albino, was common to all the river-side tribes of the Niger Delta, and I am afraid is still practised in the British Protectorate. Also from what I was able to learn, all of the different river gods in the Delta could only be appealed to through the medium of one of these tawny coloured Ibo girls (from this one tribe), or as I have before stated in some cases by an Albino girl, but these latter were never sacrificed by the Bonnymen to my knowledge.

I have seen it stated that a slave bought for sacrificial purposes by the Bonnymen would not be sacrificed if he or she managed to eat any food, even so little as a few grains of corn belonging to the Bonnymen, in the interval between purchase and sacrifice. I am afraid this statement is not true, or the inquirer did not get a very lucid explanation of the rule which governs this native custom, or it may be right in so far that when the victim is bought the seller is bound to supply a week's provisions, for I have known one of these unfortunate girls to be kept in a native town a full week before being sacrificed.

Knowing a little of her language, and assisted by a native boy who spoke both her language and English fluently, I interrogated this girl, and found she knew perfectly well what was going to be done with her, and she displayed no fear of her fate but rather seemed to glory in it. A peculiar custom in connection with this rite was that this girl was allowed to claim any piece of cloth or any ornament she set her eyes upon, and the native to whom it belonged was obliged to present it to her. At the time I saw her and conversed with her, she must have had at least £200 worth of coral beads hung round her neck, besides which she was clothed, or rather, I should say, nearly smothered, in many yards of costly silk damask. I cannot say whether all this finery and the coral beads are still on

Digitized by Google

her when she is plunged into the sea at the mouth of the river, or whether the Ju-Ju man has at least the coral beads so arranged around her neck, that at the supreme moment he can surreptitiously convey them to some secret wallet concealed about his person; I have a very strong opinion that the Ju-Ju man sees that so much good coral is not wasted. I have mentioned my suspicions to some of the most intelligent natives who have invariably answered me in the following words: "No, no, I beg you don't say that, our Ju-Ju priest no fit to do all same you say."

I did my utmost to save this girl from her cruel fate, but to no avail, though I offered to ransom her at five times the price that had been paid for her, the Ju-Ju man would not agree to part with her, cynically observing that there was not time to get another as the sacrifice must be made at the big water then due, *id est*, the equinoctial (September) tide.

This complete disregard for death I have frequently noticed in natives who knew they were to be sacrificed, in fact, they seemed anxious for the event. I have closely questioned many of these poor victims to see if there was any religious idea in their minds of a future state more happy than their lot on this earth, or if they expected some great reward in their future state by the mere fact of their being sacrificed to the gods; but I was never able to get any reply to my questions to indicate that their state of indifference was brought about by any religious sentiment. I therefore put it down to some kind of frenzy that takes possession of them, and renders them almost if not quite oblivious to all passing events, once they know they are to be sacrificed.

This state of frenzy and total disregard of life I have noticed to often take possession of both male and female natives of Western Africa; on many occasions I have especially noticed it amongst the women. On the deportation of a king or a chief by the British or other European government for some offence I have seen the wives of the deported man throw themselves into the river and fight like mad women with the people who went to their rescue; I have also seen some of the male retainers both free and slaves of a deported king or chief attempt their own lives at the moment when the vessel carrying away their chief disappeared from their sight. Another instance I remember was during the war between the Bonnymen and Ōpŏbŏmen in 1870. A Bonny youth was brought a prisoner to Opobo by some of King Ja Ja's people. Recognising the youth as one who had been my servant in Bonny, I went to Ja Ja, the then King of Opobo, and asked him to give me the boy. Upon my explaining my reasons, he very kindly said I could take him and do what I liked with him, sending one of his chiefs with me to order his people to give up the prisoner to me. When the boy heard what I had done for him, instead of being grateful, he went off into a paroxysm of abuse against me, acted like one demented, and finally began to curse King Ja Ja, saying all kinds of abusive things about the King's wives, and finishing up by accusing himself of being the murderer of one of them after having outraged her.

This was more than the crowd of Ja Ja's people could stand, and before

Digitized by Google

I knew what was happening this youth was knocked senseless and his head severed from his body.

As a further example of the callous condition of natives intended for sacrificial purposes, I must here cite another case. In all native communities of the Niger Delta a man cannot be a full chief and entitled to all the prerogatives of chieftainship without having taken off the head of at least one enemy in war, or decapitated a prisoner in cold blood. Failing either of these actions, he must on the occasion of his being made a chief, purchase a slave for the express purpose, and woe betide him if by any chance he should bungle in his task and not take the victim's head off in a workmanlike manner; for cases have come to my knowledge where the aspirant chief has failed to take the victim's head off at one stroke, so that the half decapitated wretch has had strength enough to turn his head round and curse his executioner. This unfortunate clumsiness on the part of the chief is noted by his fellow-chiefs, his wives, though not present, hear of it, and henceforth when his wives or fellow-chiefs desire to annoy him they remind him of this episode. Cases have occurred in the Niger Delta of powerful chiefs making their young sons perform this horrible head-cutting rite before they were in their teens. These children can always be recognised by their being allowed to wear a large feather in their hats, this mark of distinction being strictly the sole right of a chief. Of course all these horrible practices are now being put down by the officials of the Niger Coast Protectorate, and in Nigeria by the Royal Niger Company's officials, who are constantly engaged in stamping out these inhuman practices. In fairness to many chiefs that I have met with in the Niger Delta, I must bear witness to their wish not to carry out this disgusting and cruel ceremony; but as these practices have been handed down from time immemorial and carry with them certain emoluments for the Ju-Ju priests, as well as the occasion being seized upon by the lower orders as an excuse for feasting and dancing at the expense of the newly initiated chief, the more enlightened natives have hitherto been unable to do much towards the abolition of these horrible rites.

Circumcision is practised by many of the inhabitants of the Niger Delta, but not with any idea of its being a religious ceremony as some travellers in this part of Western Africa have reported. Amongst some of the tribes it is the sign of freedom, so that a slave who becomes a rich and influential man in a tribe where this rite is thus looked upon, must undergo the operation or stand the taunts and reproaches hurled at him by the female portion of his establishment on any slight provocation. When a freeborn chief of the same tribe wishes to be particularly severe on his parvenu fellow-chief, he hurls the word "*pellégá*" at him, with a strong emphasis on the last syllable, as being his final swear-word and the expression of his utter contempt for him.

The peculiar fact that the rite means one thing in one tribe and just the opposite in another is singularly well demonstrated by the case of the New Calabar and Bonnymen, the distance between the chief towns of these two tribes not exceeding fifteen miles as the crow flies; yet in the former not to be circumcised is

Digitized by Google

the sign of slavery, whilst in the latter the opposite rule holds good and the word of reproach is *pellum*. These two words *pellégá* (uncircumcised) and *pellum* (circumcised) being the same in both the Bonny and New Calabar dialects are very favourite curse-words of all classes and ages of both tribes.

Native Curse-Words and Sticks.

Whilst speaking of native curse-words, of which the Niger Delta natives possess a very large and diabolical assortment, I think it will not be uninteresting to give you one more example of native vituperation. This example one might call silent abuse, for it is not at all necessary to open your mouth in order to give due effect to this most terrible curse to a native woman. You have only to raise your right arm, and closing your fist allow your index and middle finger to spring up and form a V, and the thing is done. I have very often seen two women quarrelling in a very mild "go as you please" kind of way, but still showing signs of an increased pressure of steam accumulating, when suddenly one would put on a very disdainful look, and raising her right arm, would make the sign as described. Sometimes the other would simply make a motion with her right hand as if drawing a circle round her head, and with a snap of her fingers intimate that she casts the vile curse back on her opponent; or, if she was of a very susceptible nature, she would run away as fast as her legs would carry her, crying out at the top of her voice the curse that had been cast upon her. In some cases I have known this curse to have such an effect on a woman that she would lose her reason completely for some hours after. This curse of holding up the two fingers as described means "May you become the mother of twins," a truly frightful curse when one remembers that the almost general rule in the Niger Delta is that the mother of twins must be put to death and her children also. I say almost general, because in some places the mother is allowed to live; but her life is little better than a living death, for she becomes an outcast and must live the remainder of her days in the forest. If she by force of hunger ventures near a village or town she must do so only at night time, and must be very careful to guard against being seen by any other natives, for the Ju-Ju laws lay it down that if such a woman passes along any of the paths leading to the town or village, those paths would be defiled and unfit for the rest of the inhabitants to use. She must not drink from the same spring or water supply of her own people; she must not touch anything belonging to them. The consequence is that the mothers of twins simply die from hunger and exposure, or they take their own lives.

In all towns and villages of the Niger Delta there is always some old hag of a slave woman whose prerogative it is to kill the twin children; in the larger towns there are several of these killers of twin children; immediately on the birth of twins one of these old women are sent for and upon her arrival she takes each child by the feet and the back of the neck and breaks its back across her knees. The bodies are then placed in an earthen pot and taken into a dense part of the

Digitized by Google

bush and then left to be devoured by wild animals and insects. In some parts of this district the children are not killed but simply thrown into the bush to be devoured. In the few cases where missionaries have been successful in getting these children delivered up to them, their lives have been saved; but so far I have never known of any of these children so saved being allowed to take his or her place amongst the rest of the community. As a matter of fact, up to now I doubt whether one of them would be safe if it strayed outside the mission compound, and cases have occurred where twin children have been stolen from the missionaries and murdered by their relatives.

Another cruel custom in this part of the world is that of killing the child of a woman who dies in giving it birth, and burying it with its mother; this is not done absolutely from any superstition, but simply because the mother being dead there is no milk for the child, and these people do not yet know the uses of a feeding bottle or condensed milk. A foster mother is almost unknown in the country. I say almost unknown because cases have occurred where a foster mother has been found; but the child must be an exceptionally strong and healthy one, besides which the position or power of the father of the child, or relatives of the mother, would have to be such as would enable him or them to compel some woman to become the foster mother.

The cases when this is done are so very rare that I do not remember any successful one; but Miss Kingsley assures me she has known of such, and her opportunities of getting correct information on this subject were greater than mine. There is a ceremony, however, to be performed to insure the dead mother's spirit from returning to claim the child, which I think should be recorded.

A suitable sized piece of plaintain stem (that portion which has the fruit clustered round it) is procured and forced into the womb of the dead mother. This according to native ideas prevents her spirit coming back to fetch the child, and the mother thinks she has the child with her. This account has been confirmed by an English lady who was present on two occasions when this ceremony was being performed and succeeded in restoring, in one case, the mother to life, as she found the mother was not really dead but only in a state of coma from excessive loss of blood.

Another form of dumb cursing is that of which the cursing stick is the example. In some parts of the Delta close to Lagos and the Yoruba country the thumb held in this particular manner is a curse of awful import to a native. This curse may be surreptitiously made use of, by a prisoner on trial, before a British Court of Justice; in this manner (showing how it is done), by hiding it up his sleeve and pointing at the witness, who seeing the head of the curse stick in the hand of the prisoner, stops as if shot. As a matter of fact this stick was taken in open Court from a prisoner by the orders of Sir John Smalman-Smith, late Chief Justice of the Colony of Lagos.[1]

[1] My authority for the above is Sir John Smalman-Smith, late Chief Justice of the Colony of Lagos. Miss Kingsley is however inclined not to agree with him.

Digitized by Google

Clitoridectomy.

The custom of excision of the clitoris is very much practised amongst the tribes dwelling on the banks of the Cross River and in the Old Calabar district as also in many other parts of Western Africa. I have questioned both native men and women to try and get the native's reason for this rite, but the almost universal answer to my queries was "it is our country fashion," a most exasperating answer, but the only one returned to a very large percentage of questions, in all parts of Africa. In some few instances I was fortunate enough to get more definite answers to my queries. One old man explained to me that the rite was practised amongst his people because it was found favourable to continence. Several old women told me that in days gone by, long, long ago (these people have no idea of dates) many women suffered from a peculiar form of madness, and it was found that this rite had the effect of reducing this in a marked degree, so ever since that time it has been the custom of their country.

The mode in which the operation is performed varies in different tribes; in the Old Calabar district it is done in the following manner: that part of the top of a cocoanut shell, which has the three eyes in it is carefully cut off and scraped quite smooth and thin; then the eye that lets out the milk is carefully bored and the edges scraped quite smooth; the *glans clitoridis* is then drawn through this hole and cut off with a razor, knife, or in some places by a piece of bottle-glass which does duty for a razor or knife. This manner of performing this operation was confirmed by Thomas Forshaw, Esq., of Liverpool, whose connection with the West Coast of Africa dates from some time in the fifties.

There seems to be no particular age at which the native law enjoins the performance of this rite, though it is generally carried out when the girls are young, except in the case of a woman bought or raided from some tribe which does not practise clitoridectomy.

Some of the customs the people of Western Africa have for securing the chastity of their young girls are worthy of being mentioned. Previous to 1860 it was the custom in Lagos for young girls to wear only a loin cloth of a hand's breadth, which they had to take off on meeting a Ju-Ju man to intimate to him that they were chaste; the law being that if the Ju-Ju man caught a young girl parading the streets with the outward signs of virginity on her, which she had lost the right to wear, she became his property until she was redeemed by her friends paying a fine varying in amount according to the status of her family. In the case of a free girl the fine would be much greater than for a slave girl. This practice of exposure was also customary on meeting a white man, as in those days a white man was looked upon as Ju-Ju. This custom I saw carried out myself as late as 1864 in the native parts of the Island of Lagos, though at this time Lagos was already a British colony.

The people dwelling in the immediate hinterland of the *Ekrika* country have also a very curious and somewhat cruel custom for the safeguarding of the chastity

Digitized by Google

of their young girls. The particulars of this custom were given to me by a chief of Opobo on the occasion of his having received in payment of a debt a young girl belonging to these people. The custom consists of scraping the *labia pudendi externa* until a raw surface is formed; then the two parts are brought together and kept in that position until the *labia* grow together, thus completely closing up the opening into the vagina. When the female thus operated upon draws near the age of puberty, she is taken into a part of the forest sacred to the female portion of the tribe, and there undergoes a second operation which consists of this false hymen being perforated by one of the old women of the tribe by the insertion of an ivory probe about the thickness of a lead pencil, this being done to allow of the free passage of the menses. This curious custom was brought under my notice, as I have already stated, by a native chief who had received a young female slave in payment of a debt. In this case the false hymen had not been punctured previous to the girl's leaving her own people; the consequence was that on her arrival at puberty her sufferings were very severe, and her new owner applied to me to get an English medical man to see her. Luckily the chief had already related to me the curious custom of this girl's tribe so I was able to explain matters to the doctor, who successfully operated and informed me afterwards that from the appearance of the parts he was inclined to think the chief's information was quite correct, though if it had not been explained to him he most certainly would not have thought the growing together of the labia was anything other than an ordinary freak of nature.

Since writing the above I have learnt that this custom prevails amongst the Arabs, and is not unknown to anthropologists.

With regard to the photographs illustrating this paper, I think it would not be out of place to mention a curious fact about the ways of an uneducated native when he is shown a photograph or picture of anything for the first time. He generally turns it upside down or endways to look at it; even after having been shown a picture several times and having had it explained, a fairly intelligent native would be almost sure to get hold of it the wrong way up if he wished to explain it to his friends afterwards.

But if he could not find the original picture shown him and attempted to describe one that had not been explained to him he would be certain to hold the picture any way but the right way.

Photographs of single figures of people they knew they could generally see the likeness and recognise the person; but not always from the face, oftener than not it was some peculiarity of dress, the hat, the man's stick, his bandy legs, or some peculiarity in the cut of his clothes, that they recognised.

Description of Plates VIII and IX.

Plate VIII.

No. 1.—Viper's tooth, Fetish.

„ 2.—Native made toilette bottle for holding antimony, used by the native women to darken the skin under their eyes.

„ 3.—Yoruba cursing stick.

Digitized by Google

No. 4.—Symbols of Yoruba Secret Society.
„ 5.—Fetish neck charm.
„ 6. } Native symbols connected with Fetish worship.
„ 7. }
„ 8.—Musical instrument (made from a gourd) used at Fetish ceremonies.
„ 9.—The voice of Oro (a Yoruba god), exactly similar to the Bull Roarer of the Australian natives and used in almost identical ceremonies.
„ 10.—A number of brass ankle rings.
„ 11.—A curious article worn by the women in the sacred bush after undergoing certain native rights.
„ 12.—Two native made knives used by the celebrated native conjurer and witch doctor Adeoshun in murdering women. This man was executed at Lagos on the 9th August, 1884.
„ 13.—Native war horn, made from a gourd.
„ 14.—Three glass ankle rings worn by the Niger women. Native made from soda-water bottles.
„ 15.—Three anklets (wood), fine specimens of native cloisonné work.
„ 16.—Two brass anklets.

All these were borrowed by the Comte C. de Cardi from the collection of Sir John Smalman-Smith.

Plate IX.

No. 1.—The Yoruba goddess "Odudua," the mother of the gods. From the collection of Sir John Smalman-Smith.
Nos. 2 and 3.—Two ivory anklets worn by Niger women. The weight of these two pieces of ivory is about five pounds. From the collection of the Comte de Cardi.
„ 4 and 5.—Specimens of ivory carving from the South-west coast of Africa. From the collection of the Comte de Cardi.

DISCUSSION.

Miss KINGSLEY.—There are only a few things which I should like to say regarding Count de Cardi's paper. I need not say they are not criticisms on it, for it is not for me to criticise one who has had so unique an opportunity as Count de Cardi of knowing the natives of the Niger Delta; his experience, moreover, was not merely a long residence among them, but a long friendship with them in the bargain. Without this factor of friendship long residence can count for very little in the acquisition of knowledge regarding these crafty and nervous people.

The first point I would like to draw your attention to is the mention M. le Comte de Cardi makes of the fetish king, the Ju-Ju king, and the civil king ruling together in one district. This is a subject on which I have long been working, but have not published anything because I know my information, in many parts, is incomplete. There are, however, a few points regarding it which I think I may speak safely on; one is that in all undisturbed true Negro cultures you will find these two kings, or in some places two aristocracies, one religious, and one civil. When a true negro culture is disturbed you have a tendency to consolidate those kings in one man, as in the case of Dahomey and Ashantee, but when outside pressure is absent they are separate. The regions where external pressure is absent, the most valuable regions for a student, are the Oil river and the Kru coast. M. le Comte de Cardi I leave in possession of the Oil rivers, and retiring to the Kru coast beg to draw your attention to the very similar form of social and religious organisation to be found there. The body politic among the

Digitized by Google

Kru people and their neighbours the Qua Quas is an elaborately organised democracy divided into three classes, or rather into three ages, of free men. The most powerful class are the *Gnekbade*, or old men. The senate, the *Gnekbade*, have two presidents, the Bodio and the Worabanh. The Bodio is the thing called the fetish king. He has charge of the spiritual politics of the nation. His position is one full of honour and inconveniences. Among other inconveniences his house is a sanctuary. A sanctuary, as I have frequently stated, is a sort of rookery of bad characters. A Kru friend of mine resigned office as Bodio, because of the sort of people who quartered themselves on him and the expense of feeding them and the rows they had amongst each other. He stood it for three years and did his best, and then came a man with homicidal mania, accompanied by epileptic fits, but legally innocent, and my friend resigned Bodioship after losing an ear and receiving other bodily damage. Moreover, apart from the worry of presiding over a sanctuary, the Bodio is held responsible for the crops, for the fishing, for epidemics, such as small-pox raiding his people, things that will happen and go wrong, and so in fact it is hardly worth having to be a Bodio. There was a fetish king in Calabar up to some twenty years ago; now the office, which was very similar to the Kru Bodio, has expired on account of its responsibilities and expenses. The only advantages the office of Bodio really offers is a small toll paid to the holder and the right to wear an iron ring round your ankle and be feared and reverenced as long as things go well with your community in the main; when they don't you can be deposed; when you are deposed you are looked down on terribly.

The other president of the *Gnekbade* is the Worabanh. He has little influence in times of peace, but in times of war he is absolute ruler. I believe him to be the forerunner of the civil king.

Next in grade to the *Gnekbade* among the Kru comes the military, the *Sedibo* class, the middle-aged men. Seemingly they are the rulers of the Kru people, but they are under the power really of the *Gnekbade*, only the *Gnekbade* are not so showy and easily observed. The *Sedibo* also have two presidents, the *Ibadio* and the *Tibawah*. These are equivalent in function to the *Bodio* and *Worabanh*; the one sees after the spiritual side of war, the other after military organisation.

The next in grade to the *Sedibo* is the *Kedibo* class, the young men. These *Kedibo* of Kru are the men all Europeans know in their generation as the backbone of white effort in West Africa, the men who act as seamen, servants, labourers, stewards, helpers in all hard work, ways to England in West Africa. When they have made enough money, and are old enough, they go back to their country and rise to the rank of *Sedibo*, and if wise enough pass on into the senate, the *Gnekbade*; if particularly eminent they become officers in their grades. This Kru system I believe to be the typical West African form of the state. In the Oil rivers you have the additional factor imported into it by local conditions of domestic slavery, the Krus being a non-slave-holding tribe; but you will, I think, see from M. le Comte de Cardi's published description of the natives of the Niger Delta in West African studies, that the Negroes have extended this democratic system to their domestic slaves there, so that the lowest slave that paddles an Oil canoe may rise to the rank of a king.

With regard to those places where you have a fetish, a religious and a civil aristocracy ruling, you have much the same course of events and development.

Digitized by Google

I think we have most information from the Ga region. The neighbouring people, the Tshi, have a different form of state organisation—a military one—but among the Ga or Accras the history we have shows that the early form of government was a fetishocracy, the power being entirely in the hands of the *wourtsimi*, whom Reindorp calls the "foretelling priests or prophets." The headman of these prophets was called Lumo, and he was supposed to be a nominee of the national fetish, Legbh, but I think we may assume he was elected by the local college of cardinals. His office did not go by hereditary succession. The government was carried on by officers of the Lumo, called Wulomo—fetish priests or servants—and the Wulomo had a headman, and that headman was rather like a civil king, but too priest-ridden to be satisfactory, being only the officer of the Lumo. Now and again it happened that the chief of the Wulomo was identical with the Lumo, both offices being held by the same man, as was the case with Osai Koi, but this proved inconvenient, and the law stands now that the acting king can never be a Lumo. Even if a prince becomes a Lumo he forfeits all right of succession to the stool or throne, for the headmanship of the Wulomo is now hereditary in a certain degree; in fact, the Accras have disestablished the Church.

I should much like to know whether the President has observed anything like a similar course of events in Benin, another fetishocracy region, one with which he is far better acquainted than I am.

I do not wish to detain you further than to say I completely endorse what M. le Comte de Cardi has said in favour of the operation of Ju-Ju. I believe more than he does that it is a power for good. It works evil, but so do some of our own Ju-Jus. With regard to the Long Ju-Ju in a pool M. le Comte de Cardi speaks of, I beg to say its local name is Abasi Inokun. It was instituted by a goddess who lived in that place, and who had some pet fish in a pond. I am not at liberty to say more. There are three other Long Ju-Jus in that same Oil river region, one of which I visited, but again I am not at liberty to say more. I merely wish to ask a question in conclusion. What is the connection between Long Ju-Ju places and sanctuaries, if there is one, for they are not identical anywhere? As to what sanctuaries are, I have had my answer, I believe a full and complete answer, from that great student thinker, Dr. Fraser, of the *Golden Bough*, in his last paper on Totemism, published this month. I beg to say if any one is interested in the Negro State-form, he will find what I have said concerning the Kru people supported, I do not say entirely, but with many further details than I can give without quoting from them, by Leighton Wilson and Labat and Barbot. I picked my information up from the many *Kedobi* Krumen I have met, and the ex-*Bodio* attached to the German Government at Victoria, Ambas Bay Cameroon.

Colonel R. C. TEMPLE, C.I.E., remarked that he had been much struck with the close similarity between the character of the scenery depicted on the slides exhibited by the authors of these papers and that prevailing in the Andaman and Nicobar Islands and parts of Burma and the Indian Peninsula. The Comte de Cardi describes the difficulty that the people of Western Africa have in understanding the meaning of pictures, a difficulty experienced in those parts of the Indian Empire with which he was familiar. His account of the oil-palm is very closely applicable to the cocoanut of the Nicobar Islands and Ceylon. Every part of the tree is in daily economic use, and its milk is used as drinking water. The mode of

Digitized by Google

climbing the oil-palm is practically identical with that of climbing the cocoanut in many parts of the East.

He also noticed various analogies of custom—the habit in the Nicobars of destroying the property of the deceased, chiefly by placing it on the grave, the result of which is to render the accumulation of tribal or family property impossible; the human sacrifice at the death of a chief, which is analogous to the Hindu rite of Sati and the Meriah sacrifices of the Khândhs; the head-hunting in West Africa, which closely resembles the rule prevailing among the Nâga tribes on the Assam frontier; the gesture of the horned hand, which is found in many parts of Europe, particularly Southern Italy. In Burma the habit of women stripping themselves in the presence of those whom they wish to direly insult is a survival of some form of symbolical cursing which exists only in this attenuated form. So the difficulty which more enlightened priests and people find in getting rid of old-established customs owing to the vested interests of the priestly class prevails in many parts of the world, and particularly in India.

COUNT DE CARDI, in reply to the question, "Was there any custom called blood brotherhood on the west coast of Africa?" said that there was, but to fully describe the custom would take up too much time that evening; he hoped, however, to embody a full description in some future paper.

Replying to the question, "Were the human sacrifices placed under the influence of any drug, which would account for their apparent disregard of death?" he went on to say that, in some cases, he had seen the male victims under the influence of strong drink, but in others the victims refused to touch spirits of any kind; in the case of the girl sacrifices, he felt sure they were not.

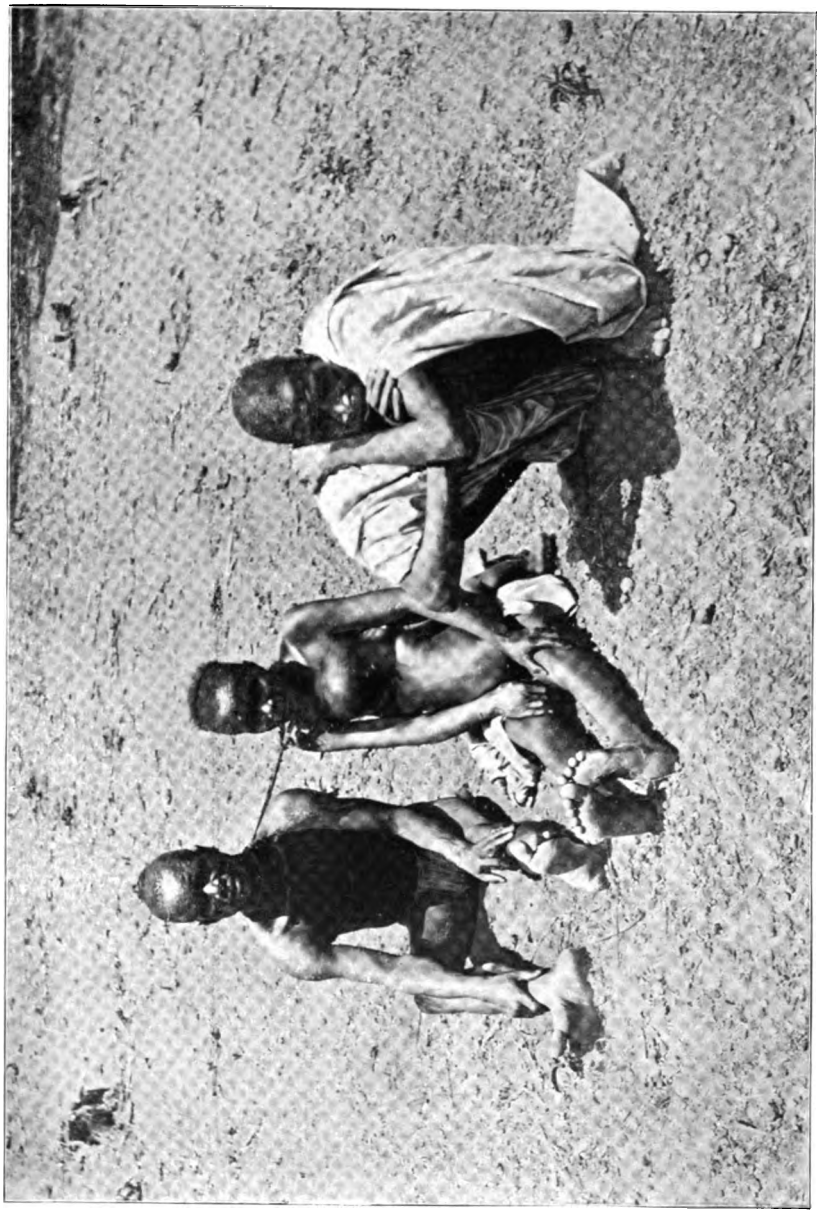
In reply to Miss Kingsley's question *re* the existence of sanctuaries in connection with the powerful secret societies and Ju-Ju centres, he said he had often heard of them, but had never succeeded in getting what he considered reliable information, or at any rate such facts about them as would justify him in giving them to the Anthropological Institute as being absolutely reliable. He was afraid we should have to wait until a real head priest of one of the very secret societies could be prevailed upon to enlighten us. Continuing, he would like to say that by nature the negro is secretive; but a Ju-Ju man of the higher grade or a secret society man of the upper class or degree is reticence itself on the inner secrets of his craft.

EXHIBITION OF LANTERN SLIDES.

(PLATES X TO XIII.)

Mr. T. J. ALLDRIDGE, F.R.G.S., of Sherbro, West Coast of Africa, showed a large number of interesting lantern slides depicting different phases of scenery and of the natives in the Colony of Sierra Leone and the Hinterland. The value of the views was greatly enhanced from the fact of their having all been actually photographed by Mr. Alldridge personally and developed in the country, very frequently in spite of almost insuperable difficulties. Many of the pictures represented subjects which had never been previously shown in London. The native customs of Poro and Bundu and the Bundu Devil, also the Tasso men, were

Digitized by Google



SLAVE DRIVER AND SLAVES SHERBRO.

Digitized by Google

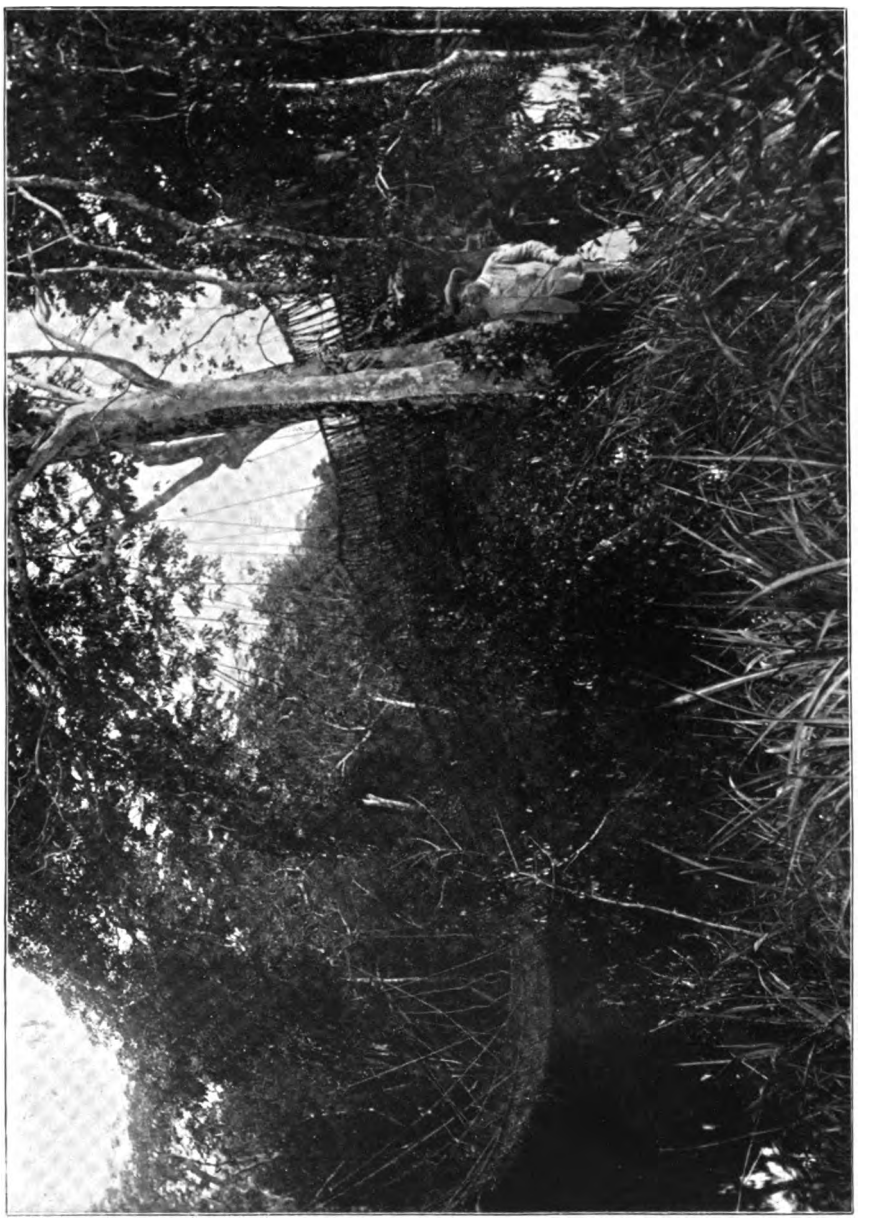
Digitized by Google



THE BUNDU DEVIL DRESS.

Digitized by Google

Digitized by Google



YENKETTI SWINGING BRIDGE, SHERBRO.

Digitized by Google

Digitized by Google



NATIVE MUSICIANS, SHERBRO.

Digitized by Google

Digitized by Google

extremely peculiar, the costumes being beyond imagination. A realistic scene of a slave dealer conveying his purchases consisting of a man and woman—of no relationship—tied together by a rope around their necks, the woman carrying a suckling infant, was most touching, and presented to the sympathetic audience a clear idea of this iniquitous traffic in human beings, which happily by the energetic measures of the Government has now become practically obsolete in this part of Western Africa. When the capture was effected the wretched people were being transported overland to the Susu Country, there to be exchanged for cattle, which in their turn would again be bartered for another lot of slaves, and in this manner the traffic would be continued had it not been for the timely interposition of the Government in safeguarding the interests and security of the interior people. The view of the cemetery at Waima in the Konno Country where the collision between the French and the British occurred in December, 1893, and which was photographed by Mr. Alldridge in April, 1894, brought out melancholy recollections of a regretful episode. The beautiful view of a Yenketti, or hammock suspension bridge, over the Sehli River in the Kuranko Country was received with much appreciation, as were also the exquisite views of tropical foliage, particularly a cluster of bamboos of great height, standing out with such distinctness and beauty as to lead one to imagine that this typical scene was actually present. A short description was given as each view was exhibited on the screen, and the audience had an opportunity upon this occasion of hearing the remarks of the Pioneer (Mr. Alldridge) in the opening up of the very little known Mendi Country, which were not only of much interest but of considerable importance in delineating the curious customs of these semi-savage tribes who by the recent rebellion have become somewhat notorious.

ORDINARY MEETING.

MAY 9TH, 1899.

C. H. READ, Esq., F.S.A., *President, in the Chair.*

The Minutes of the last Meeting were read and passed.

The PRESIDENT introduced Dr. A. L. BENNETT, who had lately returned from the French Congo, and who proceeded to read his paper, "Ethnographical Notes on the Fang," which was well illustrated by lantern slides, and a collection of masks and other objects, from West Africa.

Discussion was carried on by Mr. F. G. MARRIOTT, F. C. SHRUBSALL, G. L. GOMME, WM. CROOKE, and Dr. GARSON.

The PRESIDENT and Dr. GARSON expressed their pleasure at the appreciation of their book *Notes and Queries* expressed by Dr. Bennett, and in closing the evening with a vote of thanks to Dr. Bennett, the PRESIDENT hoped that he would in future favour the Institute with more of such useful papers.

Digitized by Google

ETHNOGRAPHICAL NOTES ON THE FANG.

By Albert L. Bennett, M.D., F.E.S.

[with plates xiv to xvii.]

CONTENTS.

I. Introduction.
II. Physical and Moral Characteristics.
III. Clothing, Ornaments, Painting and Tattooing.
IV. Habitations.
V. Navigation, Hooks, Nets, Fishing, Traps.
VI. Metallurgy, Fire, Machinery.
VII. Customs.
VIII. Invention, Natural Forms, Conservatism.
IX. Ornamentation.
X. Food, Cooking.
XI. Anthropophagy.
XII. Religion, Fetish or Biang (medicine).
XIII. Witchcraft, Cursing Dead Relations.
XIV. The Ngi (a Fang Secret Society).
XV. War, Hostages.
XVI. Hunting Traps.
XVII. Burials.
XVIII. Akôm.
XIX. Abnormalities (Natural Deformities), Albinism, Erythrism, Hermaphrodites, Deformations (Artificial Deformities), A. Facial; B. Dental.
XX. Fang Proverbs and Sayings.

I have the honour to come before you this evening, for the purpose of making known to you the result of my observations while dwelling and labouring among that great and powerful tribe of the Bantu family, known as Fang. In presenting this paper, I do so fully aware of its deficiency; but the information obtained from natives was never accepted nor recorded as authentic, until it had been frequently confirmed by others. I also desire to acknowledge my indebtedness to the Council of the Anthropological Institute of Great Britain and Ireland, for sending me a copy of *Notes and Queries on Anthropology*, a book which ever proved an invaluable guide and help to me while living among the Fang, and studying their customs.

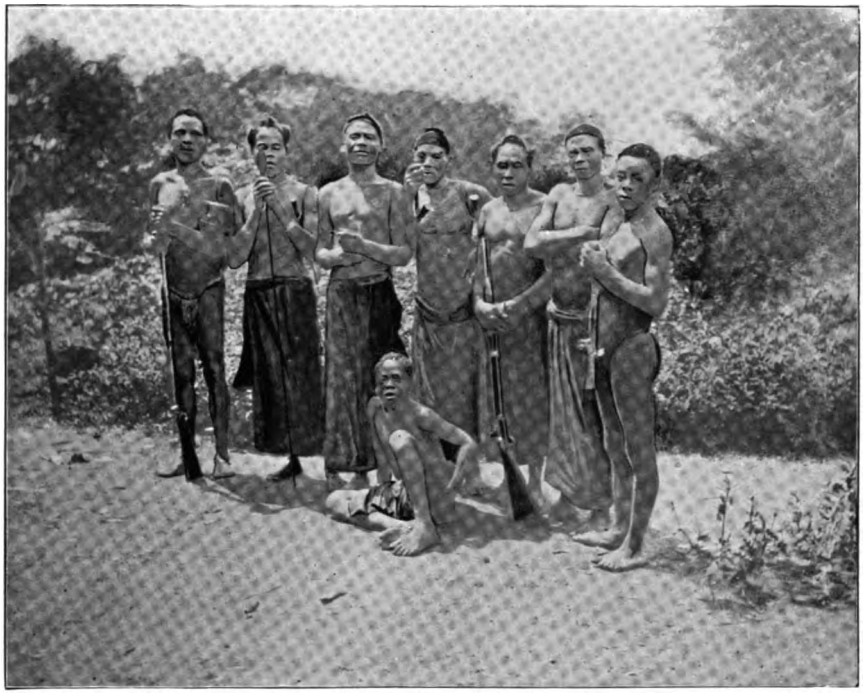
I.—*Introduction.*

The large tribe of people known as Fang inhabiting a considerable portion of the French Congo was first described by Du Chaillu.

Records show that in 1867 the French naval officer Admiral Fleuriot de Langle placed the number of Fang within French territory at nearly sixty thousand. Since that time this powerful tribe has rapidly increased in numbers. Between the Ogowe River and the Gaboon, the Fang may be counted by thousands,

Digitized by Google

6 6 -1



FANG MEN.



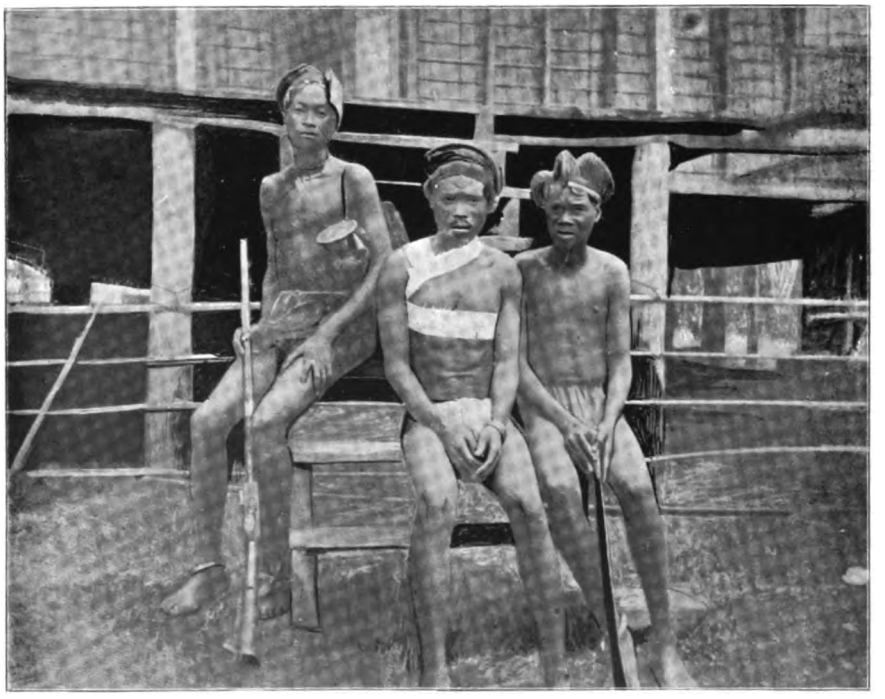
FANG HOUSE.

Digitized by Google

Digitized by Google



FANG WOMAN.



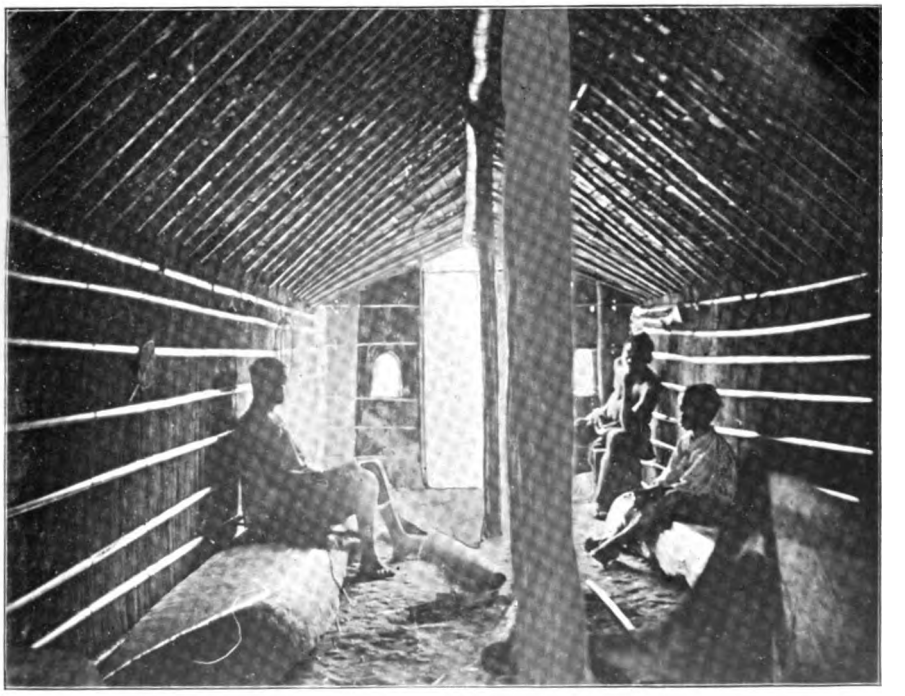
FANG YOUTHS.

Digitized by Google

Digitized by Google



FANG DANCE.



ABENG OR PALAVER HOUSE.

Digitized by Google

Digitized by Google

and like a resistless army they are steadily approaching the coast, building towns and displacing weaker tribes. That fine race of people, the Mpôngwes, often spoken of as the "aristocratic tribe," and ranking first in the scale of civilisation above all other tribes in the French Congo, is rapidly dying out, and they are already being supplanted even at Gaboon by the migratory Fang.

The Bulu people inhabiting a portion of the German sphere of influence in West Africa are without doubt very closely related to, if not a direct offshoot from, the Fang; their customs are identical and their language so markedly similar that a person who is able to speak Bulu is readily understood by the Fang. The first day of my arrival among the Fang, after residing in Bululand, I was able to make known the reason for my coming and to ask and answer ordinary questions. While visiting on a small island called Nenge-nenge in the Nkomo River, a very old Fang man told me as follows: When a lad his grandfather had told him that, a long time ago, many of his tribe "changed their towns." These people first travelled far in canoes, and then after journeying for very many days through the forest, they "stopped walking and made new towns," and they did not return. My informant's father had told him later more about these people; they had been heard from, and their long absence from the original tribe had so changed them that "they spoke new words" (a new language).

Examples could be given almost without limit of the great similarity in the language as spoken by the Bulu and Fang. A few will suffice; and I will select from the proverbs of the people which are also identical. Tell a Bulu man to hurry with his work, he will often reply, "*Alu da dayi bol' nzok?*" (Will one day rot an elephant?). The Fang speak the same proverb thus: "*Alu avoti bol' nzok?*" Again, the Bulu use the words *Melu myus* (the days that are past), *Melu osu* (the days that are to come), *Melu mesese* (all the days). These sayings and numerous similar ones are in daily use among the Fang, the words used and the idiom being almost identically the same as in Bulu. I have wondered if the account given me by the old Fang man at Nenge-nenge about the people who years ago "changed their towns," might not be of more than passing interest as touching the genesis of the Bulu.

The Fang people are spread over an immense area of country, and when questioned regarding their numbers they usually reply, "There are Fang and Fang; if you walk and sleep in towns and towns for many *moons* (months) you will find Fang." In the future it will be found that in the ethnography of equatorial Africa the Fang will hold a very important place. As before stated they are unquestionably closely related to the Bulu, and Compiègne recognised a marked similarity between them and the Osyeba, Monbutta and Nyamnyam people. There are several scattered tribes of dwarfs among the Fang. Five of these pigmies live within two miles of my station, and they tell me that more of their people will soon "move their towns" and come to live on the banks of the Nkomo river. The Fang people look on the pigmies as a very clever and superior people, and not without good reason. An old headman told me that the *mon nqui* (dwarfs) first

Digitized by Google

discovered how to work *eki* (iron) and then taught others. They are also skilful hunters, and frequently succeed in killing game when others fail. In trade, it is almost impossible to cheat a dwarf, hence the Fang saying, "*Mon mei meduk mebe, mon nqui aduk avoti.*" (You can cheat a Fang twice, a dwarf once.) In this proverb the word "*mei*" equals Fang (see photographs and measurements of Fang dwarfs). The Fang are cannibals and only fear of the authorities keeps them in check. In the autumn of 1898 a man was killed and eaten within ten miles of our mission station on the Nkomo river. I heard of the affair two days after the man had been killed, and taking a boat hurried down to the place accompanied by one of the sons of King "Kelun" from Nenge-nenge, as guide. In the palaver house of the town was a captive boy in chains. The people of this town would not admit having eaten a man, yet did not deny it; they said that the human bones in a hole behind the palaver house were those of a man who had "died two days before." I afterward learnt that the captive boy had been killed and eaten a few days after my visit. Several Fang have admitted to me that "some Fang eat man meat," and they have been told that it is far more enjoyable to eat than goat. My informants always added that they would not do such a thing—"only bad Fang did so." What I have learned from others and my own observations lead me to believe that an immense tract of country in West Africa from a trifle north of the equatorial line extending even as far northward as to include a portion of the German sphere of influence in the Cameroons, is occupied by numerous anthropophagous tribes all more or less closely related.

II.—*Physical and Moral Characteristics.*

Physically the Fang are a fine people. They may be classed as of medium size. Some of the males are exceptionally large and well built. At Foulabifong, the Fang village on the Nkomo river, where I reside, there is a man belonging to the Esisis tribe who is the largest and finest specimen of humanity I have ever seen in Africa (photo shown on screen).

The skin colour of the Fang is sooty-black or dark reddish-brown, chocolate: (numbers 2 and 3 Topinard's scale); coal-black skins (number 1, Topinard's scale), are in the minority. The skin is smooth and when well cared for, as it very often is, it feels soft and velvety. In the adult the skin is lighter in the axilla; the palm of the hand and sole of foot are permanently yellow. The average Fang eye has a dark iris (class 1, Topinard's scale), and the eye-balls are placed with their long axes nearly in one horizontal plane. I have occasionally noticed a compression of the outer angle of the opening, mostly in females, strongly suggestive of the "almond eye." The hair may be classed as black and woolly. It is uniformly scattered over the hairy scalp; the hairs are coarse in texture. The males seem to have an aversion to hair on the face and frequently pluck if out; only a small percentage grow beards.

In adult males hair is often quite abundant on the chest and forearms.

Digitized by Google

The face is oval in form.[1] The average nose is of the negroid type (short, broad, nearly straight), Fig. 7, Topinard; or the Australoid or Papuan (broad, with the lower part forming a flattened and depressed hook), Fig. 8, Topinard's scale. The skull is thick and strong. Very often the brows are depressed deeply, the cheek bones are prominent, and at the angle of the inferior maxillary bone there is an inclination to bulging outward. The alæ nasi are broad and thick, and the nasal bridge often much depressed giving the typical, flat, turned up nose of the negro. Yet I have observed among the Fang some handsome aquiline noses, and quite frequently the Australoid or Papuan type. I have frequently noticed that the possessors of the aquiline, or Australoid type of nose, showed a higher degree of intelligence and a more genuine desire to learn "the white man's ways."

The ears are large and well developed, inclined to spread outward and having broad thick lobes. The teeth are good and symmetrical; Fang men and women file the upper and lower incisors to a fine point and give as their reason for so doing, that it is *mbung* (beautiful). The head of an average Fang male sits well on the shoulders, the neck is strong and muscular, the "Adam's apple" is not highly developed. Very little attention is given to the cultivation of hair on the upper lip.

The breasts of Fang women are very pendulous after bearing children; and in some cases the breasts in males are very highly developed (photo on screen).

The muscles of the arms, back, buttocks and thighs are often splendidly developed, far more so than in the Mpôngwe, Mabeya and many other West African tribes. The Mpôngwes are rapidly degenerating. In the male Fang the gluteal muscles are not highly developed. The gluteal muscles in the female are often developed to a very high degree, measuring round from 36½ inches to 39½ inches.

Fifteen Fang males were measured and averaged as follows:

Height 5 feet 9 inches.
Chin to pubes 27¼ inches.
Pubes to inner malleolus 32½ inches.
Inner malleolus to tip of great toe 8¼ inches.
Shoulder to wrist 24½ inches.
Wrist to point of index finger 8½ inches.

In males the thumb is long and broad in the terminal phalanx; the nails of the hand are broad and flat. I have often seen a man use his great toe to pick up an object off the ground, and flexing the leg bring the object to his hand. When journeying through the bush with a caravan it is very interesting to notice how the native uses the great toe to aid him in climbing a steep hill. The sexual apparatus is very highly developed, especially in the males. The women are the

[1] It has not been possible for me to devote the time needed for a detailed study of Fang crania. The few Bulu and Fang skulls I have had opportunity for examining presented very little, if any, different characteristics. The skulls I examined were decidedly prognathous, but not large.

Digitized by Google

bread-winners and some are strong and muscular, while many more are weak and worn out from ceaseless toil.

The Fang make good carriers, and will do a splendid day's journey even in the wet season with bad forest trails, if not overloaded. A carrier's load should never exceed 25 kilogrammes; and 20 would pay better on a long journey. The first day out with a caravan the men usually drag along slowly, until their loads settle well down in the *kingi* and fit their backs. The *kingi* is a very ingenious contrivance for carrying a load in; it is usually made from a forest vine with a plaited head strap. To hurry carriers the first day is a bad mistake; poorly adjusted loads chafe and cause sore backs, and before night the whole caravan is tired out and sulky. It is a wise traveller in Africa as elsewhere who knows how to save his men.

A very noticeable fact among the Fang is the scarcity of old men. I attribute this largely to the ravages of syphilis; the same terrible disease that has done so much towards the degeneration of numerous coast tribes, and which is already playing fearful havoc among the Fang. Indolent, untrustworthy and warlike, they are nevertheless a most companionable people. The slightest piece of drollery or a joke immediately causes laughter. It has been my privilege to visit many foreign lands including China, Japan and Korea, yet never in my life have I met such an absolutely good-natured, fun-loving people as the Fang.

The men are not fond of work. They frequently ask me for something to do to "earn a cloth." If I tell them to cut fence poles or good clean bark in the forest, they decline. A male Fang's idea of work is to sit in the *Abeng* (= palaver house) and make fish lines by rolling pineapple fibre along the upper portion of his thigh, or to manufacture *Abi* (roof thatch). At these occupations he can converse with all comers, hear the news and take his part in talking a palaver. They are a revengeful people and will keep up a palaver over a woman for many years. If they do not succeed in shooting a man during a palaver they do not hesitate to fire at and kill a woman, while captives held as hostages are often treated with great cruelty.

The women regard virtue very lightly. Before marriage a girl can do nearly as she pleases. It is absolutely safe to state that it would be almost impossible to find a maiden in a Fang village over sixteen years of age. Adultery is common, and one of the chief causes of "women palavers." Women rank first in value as goods for trade, next in value are goats, then guns and cloth. The greed for goods has a strong hold on the people. They learn quickly but have very little originality. They have no obscene rites. Their habits are very dirty; they will wash in a small pool of water and, while bathing, fill the gourds or imported jugs with the water in which they are washing and use it for domestic purposes. In many other ways they are absolutely filthy, and descend to the level of brute creation. They are not over-burdened with modesty, both sexes frequently bathe together in a perfectly nude condition. A male Fang passes a large percentage of his time in

Digitized by Google

the palaver house, where he loves to sit and gossip around the log fire, or lounge on the *Enong* (a native bed of poles).

Dancing is a favourite pastime, especially at the time of new moon, when the dance seems to have some religious significance. A Fang dance is a sight worth seeing; arrayed in long streaming armlets of dried grass, and large bunches of forest beans and mollusca shells tied around the ankles for castanets, they go through a series of rapid and graceful movements, some of which are not entirely free from obscenity. Flaming torches made of resin wrapped in plantain leaves are stuck in the ground and the drums keep up a perfect fusillade; the whole making a weird and extremely interesting spectacle. With short intervals of rest the dance usually continues throughout the night until daybreak (photo of dance shown on screen).

III.—*Clothing, Ornaments, Painting and Tattooing.*

Fang men and women usually go about bareheaded; some obtain imported straw and felt hats from the traders and are very proud of them. A red worsted night-cap sold at the factories is very popular and much worn. These head coverings are chiefly worn for ornament and not to afford protection from the sun or weather. Until the opening up of trade among the Fang people their clothing amounted to almost nothing. The men wore a waist cloth made of bark from certain trees, a strong, tough, fibrous material, and the women wore a girdle stripped from the plantain stem, with some leaves from the bush or a piece of the plantain leaf tucked through the girdle in front and passed downward, backward and upward between the limbs and fastened to the girdle behind. Very often the women wore a kind of bustle made of dried grass dyed black, or red. In sitting down the women are very careful to first arrange the bustle. The native bark cloth, the girdle and bustle, are still worn in the bush towns; the women often make the girdle of imported glass beads strung on string made from pineapple fibre, but people living in towns along the river banks wear imported cloths obtained in trade. As a general rule boys and girls run about without clothing until five or six years of age. Imported cloth is worn by both sexes and is often sewn together very skilfully and decorated with pieces of different colours. There are no recognised peculiarities of dress restricted to the subdivision of tribes. The cloth is cut out and sewed by each individual owner unless it is a trade cloth previously sewn. Cloth is usually hemmed and worn as a simple wrapper around the waist, and held in place by rolling in and tucking the upper border on itself. The upper portion of the body is not much covered by the cloth although some men and women wear it tied high up around the neck. There is no difference between the indoor and outdoor clothing. When imported needles and thread can be obtained they are used, but I have seen very skilful sewing done with a sharp piece of bamboo for a needle and thread made of pineapple fibre. Upon the death of parents, clothes descend to the children. In saluting a visitor it is not customary to remove a hat or cap, if one is being worn, or any other article of

Digitized by Google

clothing. The Fang do not use any coverings to protect the feet. Rank is not distinguished by the dress, very often the brightest and cleanest wrappers are worn by the young men while the *kuma* (headman) is often clothed in a dirty old rag. Very often the *kuma* wears an imported straw or felt hat obtained in trade, and this alone distinguishes him as headman of the town. Next to the possession of women and guns, a Fang man's great desire is to own "much cloth."

Personal Ornaments.

Head.—The Fang dress their hair in the same manner as the Bulu, and the way they build it up on the head over wooden shapes is often very remarkable and shows considerable skill. Very often the hair is built up over these shapes in ridges, the upper edge of the ridge having white shirt buttons fastened along it or brass headed tacks driven in. Wigs are used and very skilfully made. Very often the term wig would be a misnomer, for the ingenious contrivance made to fit over the bald head is often entirely devoid of hair, being simply a close-fitting skull cap knitted with string made from the pineapple fibre. The wigs are usually decorated with shirt buttons or imported glass beads. The hair is frequently plaited and twisted into ringlets by both sexes; dyeing the hair is not practised. Beads and white shirt buttons are worn on the hair in large quantities, also large cowrie shells dyed with red wood powder. The beads and buttons are often sewed on pieces of goat or deer skin, a separate portion decorating each side of the head, connected by a string of beads passing across the forehead.

Moustaches are seldom cultivated, beards when worn are allowed to grow naturally; but both are frequently removed by depilation; shaving is not practised. Ornaments are frequently worn in the ears, and are usually suspended by a small cord passed through a hole in the lobe. Women and young girls when returning from work in the forest or gardens frequently cluster grasses, leaves of vines and fragrant herbs around their ears; it is a rather pretty custom. Certain fetish charms are worn suspended from the ear; women frequently use for an ear fetish the small quills from a porcupine's tail, and they say it will bring them children. Brass and iron ear-rings are also worn.

Males do not seem to feel inclined to ornament the nose, but many Fang women delight to do so. They pierce the triangular cartilage with a long slender bamboo pin: the pins sometimes project out three inches on either side of the nose. Very often a medium-sized porcupine quill is used as the ornament, in place of bamboo; it certainly looks better. Some women thus decorated look very repulsive. A female who is credited with considerable power as a medicine woman will almost invariably have the nose pierced and decorated. Ornaments are not worn on the lips or cheeks.

Body.—Men, women, and children wear necklaces of glass beads, the hoofs of very small antelope, and certain forest beans, are strung and worn around the neck. Bristles from the tail of an elephant are used for the same purpose. When

Digitized by Google

in mourning, a necklace is made from bleached grass plaited; it is worn by both sexes. A very favourite fetish charm to suspend from a necklace is a leopard tooth. I have frequently seen the two tusks of a wild boar or "Wart hog" worn around the neck as an ornament and have succeeded in bringing specimens worn mostly by the women. Imported thick brass wire wound around the forearm from wrist to elbow is a very favourite armlet; it is kept highly polished. Brass wire is often wound so tightly around the biceps as to seriously interfere with circulation. Broad pieces of beaten brass are worn on the arms, and ivory bracelets are much valued. Sometimes six or more rings of ivory are cut from a tusk, and all worn on one arm. Finger and thumb rings are mostly worn by the women; they are made of brass, copper, or iron, and are usually very thick and heavy.

Rings are no indication of rank or marriage. It is not uncommon to see a woman with three heavy brass rings on one thumb, and eight or ten similar rings on the fingers. Narrow girdles of leopard, goat or deer skins are worn across the chest to support the native fighting knife and bunch of fetish charms. I have been visited by a bushman wearing no less than twenty-three charms.

Legs and feet.—Leglets and anklets of brass are much worn and sought after by women. Brass leg rings imported by traders are in great demand. There does not appear to be any special time set for commencing to wear anklets; mere infants are frequently decorated with them. Some of the leglets are very heavy, and many women wear ten or more on one leg. These rings often fit very tightly and impede circulation, or chafe and cause nasty indolent ulcers. The ankles and feet often swell and become very painful as a result of insufficient blood supply. Toe-rings are of iron and brass largely worn, and fit so tightly that the ring is often deeply imbedded in the flesh. Usually only one ring is worn on a single toe.

Painting and Tattooing.

Painting.—The method of painting the body by smearing on redwood powder mixed with palm-oil, so largely practised by the Bulu, is followed in the same manner but to a much less extent by the Fang. Soft portions of the redwood tree are pulverised and mixed with oil into a thick paste, and the preparation smeared over the entire body. Occasionally a red band is painted across the forehead. When in mourning, dust, mud, or white clay is frequently rubbed over the entire body. Much more frequent is the practice of painting arrow heads, bands, or dots. The pigment used is a dark blue colour, obtained I am told from a tree fungus. The Ngi or witch doctor, when at work, in addition to his other paraphernalia smears his body with white chalk. Except in the case of the *Ngi*, the only object in decorating the body by painting is to appear *mbung* (beautiful), and with the Bulu when asked the reason for smearing the body with red paint, they usually reply it is *abung* (handsome). Imported pigments are not used for body decoration.

Tattooing.—The custom of tattooing is much in vogue. I have not been able

Digitized by Google

to obtain any accounts touching on its introduction, beyond the fact "we learnt it from our fathers." No ceremonies are connected with it. There are no professional tattooers, but the natives frequently employ a man known to be skilful to ornament them. It is practised by both sexes; young lads are anxious to be tattooed because it makes them feel "real men," but the practice is not indispensable as a sign of manhood. The same blue pigment obtained from a tree fungus used in painting is mixed with ashes and employed for tattooing. The instrument used is a sharp piece of bamboo, a piece of sharp iron or a knife. The practice does not appear to be in any way connected with pagan worship. Social or family rank does not affect the designs employed. Fang tattooing is not always symmetrical, it usually commences with the face, and a favourite design on the cheeks somewhat resembles the bowl and stem of a straight pipe. Only one colour is employed. Tattoo marks and designs are mostly found on the face, chest, shoulders, arms and abdomen. Women frequently have the pipe pattern or a band across the cheeks, and occasionally upon the breasts.

Cicatrization is largely practised. Small incisions are made in the skin with a sharp instrument, frequently a steel nail from an imported packing case obtained from the trade house, the nail being flattened out into a small knife blade; or a sharp piece of bamboo is used. The juice of a certain herb is rubbed into the incised wounds.

IV.—*Habitations.*

The houses are built mostly of bark; beams and rafters are made from the strong branches of forest trees and bamboo; they are secured by bush rope. The entire structure rests on the ground. It is very rare to find a Fang house on poles, except near the coast. There is no regularity in size of houses, but the form and material used is common to all the tribe. The average Fang house or hut is a low dark building, 15 feet long by 10 wide, and with walls about 6 feet high; the roof angle increases the height inside. Each family has a house; it is used, day and night, by all members of the family. Travellers usually occupy the *abeng* (palaver house), and the headman finds them sleeping quarters at night. When the owner dies he is usually buried close to the house, and the grave levelled off and soon obliterated. The houses comprising a town are built together, end to end. Towns consist of two rows of houses, with the main road passing between them. The *abeng* (palaver house) is built across one end of the main road. A large place is often composed of several towns or villages in line, the limits of each village being marked by its palaver house, and having its own headman. The Fang method of conveying information regarding the size of a place is by stating the number of palaver houses it contains. Stockades are frequently used at the entrance to a town, especially if the people have a palaver (tribal war) with a neighbouring tribe. The palaver houses and dwellings are also frequently stockaded. The natives often show considerable foresight and shrewdness by making use of the natural advantages of a position in selecting a

Digitized by Google

site for their villages. The houses can be readily taken down and erected elsewhere. The earth floor is often beaten very hard, no covering is used. The beds are made of bamboo poles resting upon end pieces, supported by four forked corner stakes. The bed is raised about one foot from the ground. In most houses are four beds, two at each end on opposite sides, having a log fire burning between, the smoke escaping through the thatch roof. The furniture is all movable, and consists of stools, cassava bowls and boards, drinking gourds, fish nets, water gourds, various baskets and hanging bamboo shelves for drying fish and corn over the fire. Food, guns and powder horns are hung up on wooden hooks suspended by bush rope; these hooks are made by cutting a suitable branch from a young tree, having a strong crutch. No separate portion of the dwelling is set apart for sleeping or eating. There are no windows to a Fang house; at night one or more pieces of bark are used for a door. All the domestic arrangements are excessively filthy. Refuse from meals is unknown, everything is eaten, including entrails and skin of animals and fish. Before occupying a new house the witch doctor (*ngangan*) is usually called to perform the ceremony of propitiating the evil spirits (local spirits), and the *biang Ekuri* (fetish) is hung up and becomes the protecting fetish of the household. This fetish is hung up over the doorway outside. The houses are built entirely above ground, the roofs are made of split bamboo and covered with thatch made from the long tough blade of a swamp reed, or rush. This thatch makes a most excellent roof, and when well put on, it is able to withstand three years of the terrible rains which fall during the long wet season.

V.—*Navigation, Hooks, Nets, Fishing, Traps.*

The Fang use long narrow canoes. A suitable tree having been found is felled and trimmed, then hollowed out with the small native wedge. All the boats are open and both sides of the canoe alike. The women use the same canoes as the men and paddle them very skilfully. War canoes are made large and strong, but are otherwise similar in construction to the canoes in daily use. A kind of lugger sail is used and the natives sail a thin canvas very close to the wind. The baler used is made of wood; it much resembles a large flat sugar scoop and is common among tribes along the west coast. This baler is used most skilfully and with great rapidity by both men and women. In paddling, no fulcrum whatever is used. The men and women either sit or kneel, grasping the paddle handle in its upper and lower thirds they plunge the blade deeply into the water, and force the canoe ahead with great rapidity. One man, woman, or a child steers, using an ordinary paddle; the time kept while paddling is excellent, and is usually kept by one man chanting a Fang song, not unlike a white sailor's shanty, the paddling taking on renewed vigour during the chorus. The sails are usually made now of imported trade cloth, but I have seen them made from the native bark cloth. Only one sail is used and the canoes are able to beat up well against the wind.

Digitized by Google

The mariner's compass is entirely unknown, and when I have shown one, it was always spoken of as "the white man's *biang bial*" (canoe fetish). The Fang shapes his course by his knowledge of the river banks; he never ventures more than three days' journey from his own town, and much dislikes the idea of losing sight of land; therefore he seldom, if ever, attempts it. Certain canoes belong to the headman of the village, others to individuals. The canoes do not have houses; charms are frequently tied to the bow, to appease the water spirit, and frequently a traveller in a canoe will throw into the river at certain places he passes portions of his food to appease the local spirit which he believes dwells there. The place where this spirit dwells may be in some large tree or rock on the river bank. At night the canoes are hauled up on the river bank and usually left unprotected. Large war canoes, if painted, are occasionally covered with a few mats. No special portion of a canoe is set apart for a chief, he is usually seated near the bow. Watertight compartments for provisions are not provided, food and articles of trade being carried in high baskets. Upon arrival of a canoe from a neighbouring town, the visitors are frequently welcomed with shouts of joy; guns are fired and a dance given in the evening. I have seen canoes repaired by placing pieces of bark over the leaks inside and outside, the bark being secured with small hard wood plugs. No arrangement is made to prevent leaking.

Hooks for fishing are skilfully made of bamboo, the barb is long, very sharp and notched on both sides. The hook is secured to the fishing-line with string made of pineapple fibre. Foreign-made fish-hooks are now largely used; these are much coveted, and considered a very staple article of trade.

Casting nets are used weighed with stones, iron, or lead, obtained in trade. The meshes are very fine and show much skilful and patient workmanship. A Fang will work well at anything which he can do while sitting in the palaver house. He can then work, smoke and talk; any work requiring much bodily exertion on his part or elsewhere is relegated to his wives. Fish traps are made of split bamboo and much resemble the lobster baskets used by our own fishermen. Small streams are often dammed at high water, the dam being made of split bamboo, fastened together with bush rope until a very large screen is made, 10 or 12 feet in height; this screen is staked across the stream at high water, when the tide falls the water passes readily through, leaving the fish in the river. The most disgusting sight among the Fang, is to see the women and children at low water walking in the mud, breast high, feeling for "mud fish." The large casting net is called *ewot;* a small round net used for dipping in pools and along the river bank at low water is called *tan.*

VI.—*Metallurgy, Fire, Machinery.*

Metallurgy among the Fang is limited to the working of iron. The native word for iron is *Eki.* The Fang among whom I lived did not possess the knowledge of smelting, but I was told that "other Fang far away in the bush, especially the Nqui 'dwarfs), dug the *minkok eki* (stones of iron) out of the earth, melted it, and

Digitized by Google

traded with the *eki* (iron)." Iron is put to various uses. Long bladed knives of various shapes and patterns are made, also spear heads, armlets, anklets, finger and toe rings. Small pieces of iron are used for bullets in flint-lock muskets. One of the most important uses of money among the Fang is the making of *beki*.

Beki is made up in bunches ten *beki* in each bunch; a bunch of *beki* is called *ntet*. The amount of dowry paid in *beki* is usually counted in hundreds, *kuliki bi kei, ntet awom* (bring me one hundred *beki*).

A bundle of ten arrow heads is frequently used as an *ntet*.

A peculiar shaped adze is made of iron; it is used for working wood, especially hollowing trees intended for canoes.

Pieces of iron are forged into axe blades (*ovon*).

The *mfak* is a short handled spade made of iron, used for digging in the gardens.

The art of casting seems to be unknown.

The bellows (*nkum*) used by Fang smiths are very ingenious (*specimen on table*). The feet are used to steady the bellows, whilst both hands work the goat skin covers and force air into the fire.

A block of iron is used for an anvil. Some of the natives are quite skilful at working iron. A Fang living near my residence often begged from me a round steel nail from a packing case. In a short time he would return with the nail transformed into a thin delicate knife or dagger, only the nailhead remaining intact. Very large fighting knife blades are made and beautifully fashioned, and ornamented with various punch marks.

I have never seen any native made wire. Imported brass wire is in great demand and mostly used as a continuous armlet. The coil usually reaches from wrist to elbow, and is considered extremely *mbung* (handsome), and kept highly polished.

Imported brass is obtained in trade and made into armlets, anklets, finger and toe rings. It is also used for ornamentation of guns.

Many of the natives are skilled workers of iron and fully aware of its value. I have never seen welding practised, but in working hot iron it is frequently plunged into cold water to make it *alert* (hard).

Fire.—In the far interior, fire is produced by friction, the simplest form of a drill being used, which is twisted rapidly between the hands. Along the rivers matches are obtained from the native traders, who bring up large quantities from the coast. The natives are always ready to trade for matches, which are again traded to interior tribes. Flints are only used on the hammer of the old flintlock musket imported for trade. Fires are almost constantly burning in the palaver houses. Two dry logs are kept constantly burning, they are placed end to end, when one log is nearly consumed it is replaced by another.

It is interesting to notice how the natives carry fire about. When on a journey in 1897 from Gross Batanga with a caravan to the Bulu country in the German sphere of influence, one of the men usually obtained a piece of burning

Digitized by Google

log from the last town where the caravan rested. This man kept the piece of wood burning by gently swinging it backward and forward, while marching along the path with his load. On one occasion I timed a native, and when we reached the next stopping place, after a three hours' tramp in the rain, the brand was still burning brightly, and it had been frequently passed from one end of the caravan to the other so that all who desired could light their pipes from it.

The Fang use fire in the ceremony of *going out of mourning*. I witnessed this ceremony once at Foulabifong. The widows of an old headman had put in the regular time of mourning and were now to be released. There were seven widows in all, three of middle age, and four young girls A small fire of leaves had been lighted in the centre of the street, and on each side of the fire stood several young men armed with switches. The widows wore a very slender loin cloth. At a given signal the widows rushed toward the fire and bounded through it, the young men switching them as they passed, but the switches were not used severely. Immediately after the switching, each widow seated herself on the ground holding a bunch of burning leaves under her feet, while a young man shaved their heads with a sharp trade knife. On inquiry regarding this ceremony, I obtained the following information: Passing the fire *cleans* them after mourning (evidently considered a means of purification). Switching reminds the widows of their duty to the man who inherits them as his wives. Burning has two meanings: firstly, the pain caused is endured as a last act of mourning for the departed; second, it signifies that henceforth the widows walk a new path (enter upon a new life).

Fire has a place in Fang religion or belief. The sun is considered the *tata* (father) of all heat, and the original maker of all fire, whether by friction, matches, powder, or lightning. When a severe thunderstorm is at its height, the natives say of the lightning, "that the sun has hid his face and is shooting fire, because he is angry." The native word for sun is *jo*. Although the palaver house fire is kept burning, still, no special effort is made to keep it alight; should it go out, any person present is at liberty to rekindle it from newly produced fire.

VII.—*Customs.*

The Fang have no system of law, no judge or tribunal for punishment of crime. Theft, murder, offences against the person are all settled according to native custom.

Example: A Fang of the Esisis clan steals goods or a woman from a Fang of the Nge clan. The Nge who has been wronged does not go to the offender for settlement, he goes to another near town and shoots the first goat he sees in the street, or if very angry, he may shoot a woman. The owner of the goat or woman demands of the Nge his reason for doing so. The Nge replies, "An Esisis" (giving the man's name) "has wronged me; I put the palaver (his offence) on you." The third party then goes to the Esisis and says, "An Nge" (giving the man's name) "has shot my goat (or woman) because you have made trouble with him; he has put your palaver (trouble) on me. You must pay me!" The original offender is

Digitized by Google

now responsible and liable to two parties; if he is reasonable they all meet and talk the palaver. If the palaver is serious, each party appoints his *ntol* (ambassador). The palaver is usually talked in the main street of the town, before all the representatives of the interested clans, and before all strangers in town. The Fang are born orators, and remarkable gestures and orations are made while talking the palaver. The speaker usually walks backwards and forwards grasping and leaning upon a "palaver stick." He commences with: *M'zona* (I say thus); when speaking for another he says *A'zona* (he says thus); when speaking for the people of his town, *Ba zona* (they say thus). Sometimes the *ntôls* (ambassadors) sit in a canoe in the middle of a river or a stream, and talk the palaver, the injured parties being on either side of the stream. The case is talked, the goods demanded in payment stated, and an effort made to *kik nsang* (cut or end the palaver). If they succeed, then the palaver is *cut* (ended), and a dance follows; if no agreement is come to, the meeting breaks up and a tribal war exists between these clans.

Salutations.

There are three salutations common to all. Two friends meet, they each grasp the arm of the other, high up on the biceps; a slight pause is made, then the hand is slipped down to clasp the wrist. This is also the customary salutation used by the Bulu.

Two friends meeting salute by embracing.

A traveller entering the *abeng* (palaver house) walks over to the headman and sits on his knee a moment, at the same time placing one arm around the headman's neck.

Hospitality demands that all strangers be served food by the town women to strangers in the *abeng*.

Wives are loaned to guests.

Coarse conversation is indulged in by old and young of both sexes.

Considerable license prevails among the unmarried; less so among the married.

VIII.—*Invention, Natural Forms, Conservatism.*

Invention.—The arts in use are common to all the different clans of the great Fang tribe. Any new discovery as the working of iron is credited to the dwarfs or *nqui*. The natives are always ready to admit that the *nqui* are very clever; they have a saying "no person knows like a *mon nqui* (dwarf) what is inside the forest." When obtainable the natives use an imported saw, or file, and admit its superiority over their own crude tools. A Fang may be impressed at the knowledge and power of the white man, but is not greatly surprised; the reason for this is that many white men are credited with possessing supernatural powers.

Some of the clubs, tools and weapons approximate to the natural forms of the branches or roots of trees. Axe handles and the handle of a certain kind of adze have

Digitized by Google

the natural curve of the branches. Stones are employed for rolling food, especially for crushing and rolling the *ngon* seed. Shells of large land mollusca are cut in half and used for spoons, small gourds being used for the same purpose. Large gourds are used for water dippers and bottles. Very many uses are found for the forest gourds, not the least ingenious being the use of a hollow stemmed gourd for administering a rectal injection. Gourds are used for the sounding boards of the musical instrument called *mvuk*. The people find many uses for bamboo. It is used in construction of houses, fish baskets and traps are made from it, fences to protect paths during tribal wars are made of sharp pointed bamboo poles; and small sharpened pieces of bamboo with poisoned tips are buried in the forest paths, point upward, to wound and poison the naked feet of an unsuspecting enemy. The teeth and claws of leopards and bush cats, elephant tail, antelope feet, horns and forest beans are used in their natural form as personal ornaments. Leopard teeth are always considered valuable as *biang* (fetish) and are much sought after; they are frequently imitated in ivory. I have not seen the defences of animals employed as artificial defences, except as fetish. Long tough forest thorns are often used as awls and needles for piercing and sewing skins. I once saw an *ngangan* (witch doctor) perform a post-mortem examination on a woman. After he had discovered the cause of death, which he announced to the expectant crowd as being due to "six witches eating her liver," he first pierced the abdominal walls with a long hard thorn, and then sewed up the body with a bamboo needle threaded with pineapple fibre. I have seen only one cave dwelling; it was used by an isolated sufferer of the dread disease called by the natives *mabata* (a kind of sloughing phagedina). When proper reed material for making thatch is scarce, large forest leaves are used, but they make very poor roofs, especially during the tornado season.

Conservatism.—The Fang are not quick to adopt reforms or to introduce new methods; they are more or less the slaves of custom, and have a superstitious dread of departing from ancestral habits. This refers to all the proceedings of life. Fang living in towns near Gaboon are almost daily coming in contact with white settlers, and to some extent, at least, appear to be changing their mode of living. It never appeared to me that a Fang had the same longing to be "just like a white man" as possesses the young Mpôngwe and Benga men.

IX.—*Ornamentation.*

The patterns mostly seen in Fang ornamentation consist of bands, incised lines, elliptical punch marks, herring bone, lozenge pattern and cross lines. The natives do not possess a natural aptitude for drawing, and seldom attempt it. The few drawings I have seen on the bark walls of houses, supposed to represent men and women, were very crude and exaggerated in proportion. They have no idea whatever of perspective. They seem to interpret foreign drawings very readily. The Fang show considerable skill in plain wood carving, using an ordinary native knife. I have noticed that their carving improves very considerably when an imported pocket knife is the instrument employed.

Digitized by Google

X.—*Food. Cooking.*

Food used by the Fang is precisely similar to that of all other tribes inhabiting the great zone of palms and bananas as described by Humboldt. Added to these ordinary foods of the Fang is their liking for human flesh, indulged in to this day in spite of the law, which is often powerless to reach and punish the offenders. Cassava, *mbôe*, plantains, *bikon*, crushed gourd seeds, *ngongon*, corn; *mekobe*, a most nutritive tuber, sweet potatoes, yams, palm oil, bananas, snails and various mollusca. Fish is wrapped in plantain leaves and boiled, or set on hot ashes and fire piled on top of the *bundle* of food. All kinds of meat is eaten, from deer down to the smallest bush rat; snakes are considered very good meat. No portion is wasted, every morsel of skin and intestines are eaten. Goats and chickens are raised for food and trade. Corn or other cereals are not used for the purpose of making bread. Milk is not used. Preparations of milk such as butter and cheese are not made. There is a marked preference for meats. When an animal is slaughtered, women bring wooden bowls to collect the blood in. The blood is often cooked mixed with palm oil. A Fang will eat almost any kind of known food and at any time, providing it is not his *Eki* or taboo, given him during infancy, prohibiting the eating of a certain kind of food, unless partaken of under certain conditions. Except for the *Eki* men, women and children partake of the same food. The Fang are improvident. When on long journeys they often chew a piece of Kola nut, but more commonly chew pieces of a certain root; it has several different names. Palm oil is extensively used in cooking. Salt (*nku*) is much enjoyed and sought after in trade. Sugar is only used in the form of sugar cane and eaten uncooked. The chiefs, or rather headmen, have no special form of food. Eating earth is not indulged in. So far as I am aware, all fish, flesh and fowl is cooked before being eaten. Flesh is often extremely high, at times positively bad, before it is eaten, but not one morsel is ever wasted.

Fish, fowl, bush rats, snakes and all kinds of meats are smoked or sun-dried; food prepared thus is carried on journeys in the bush wrapped in leaves and eaten with *mboa* (cassava) without any further preparation. Permanent ovens for baking are not in use. Meat is roasted on small spits over the log fire or wrapped up in leaves and hot ashes banked around and on top of it. Native vegetables are frequently cooked with meats, plantains are usually boiled separately or roasted close to the fire. Most cooking utensils used by the Fang near the coast are iron or brass pots, imported by white traders; but farther inland the native pots are much more in vogue. These native pots are made of grey clay and sun-dried; they become harder and stronger by use, and vary in size and capacity from a pint to about three gallons.

Cooking vessels are not kept very clean, being simply rinsed out with a little water; but if the vessel is a brass trade pot or kettle, it is usually taken to the river or a near stream, and scoured bright; but I fear the chief reason for doing

Digitized by Google

this is, because, to a Fang eye, polished brass looks *mbung* (handsome) and is attractive for trade. Vessels are usually placed on top of the fire and not suspended over it; vegetables are frequently placed in stews. No separate dwelling house exists for cooking, it is carried on in the dwelling house. The water used to wash a dirty pot with is often thrown out on the earth floor of the dwelling, children playing in the wet dirt. In all domestic matters the Fang are very filthy. I have on more than one occasion when inside a native hut seen children micturate and defecate on the earth floor close to where the mother was cooking, the women and men present taking very little notice, and only occasionally placing the child outside the door. Cooking is exclusively the duty of women, a *real man* will not cook. Food is often highly seasoned with hot native red and green peppers, and food thus prepared is much appreciated. The food is usually well cooked through, with the exception of plantains which are often only half boiled and served quite hard. Large round stones are used for rubbing and reducing to powder gourd seeds and various tubers. Smoking and salting are the only methods practised for preserving food, and on account of the value of salt and the difficulty of transporting it inland, it is seldom thus employed.

Drinks.—Rum has been carried from the coast by white traders and natives far inland and is used whenever obtainable, but the chief drink is cold water. Palm wine is made called *meyak*. Except in places where a trade factory existed I have seen very few cases of intoxication among the Fang, but when they can obtain rum it seems to completely demoralize them. Tea and coffee are known to people living near white settlers. When a party of headmen and others have taken a meal at the mission house, tea and coffee were greatly enjoyed and cups frequently re-filled. The first meal is usually about eight or nine o'clock; the natives think the white man eats very early; a mid-day meal is served and the evening repast is usually about sunset.

Food is frequently brought to the men inside the *abeng* (palaver house); at other times an entire family eats together inside the dwelling house. No ceremonies whatever precede the commencement of meals. When a son is born, or on the occasion of a wedding, and after some large palaver has been settled, a feast is usually given. Invited guests and strangers partake together with the town folk of the food prepared; it is usually served on the earth floor of the palaver house, on plantain leaves, and in cooking pots, each person helping himself. The women do not eat with the men inside the palaver house.

Mode of preparing Mboa.

Ba du mbôa osui, e vôm a ne ndâtâl: a kaga boma mēlu mēla, be keli tâs: be sâli ne nye: be nâū mbūk: be kēzi nye mbūk iti be nou ntum: beña tyak: bènga vul: be kaga mana vul: be kēzi nye ē mvē: vekoba ji: ve telē mvè mboa: wena mboa abea.

Digitized by Google

Translation.

They put cassava to soak in the river, in a place where there is (plenty of) mud. When it has lain there three days, they go and rub off the rind. They bring it (to the house). They take a trough, and put the cassava in it. They take the mashing stick. They mash the cassava. They wrap it up (in leaves). When they have finished that, they put it in the pot. Then they light the fire. They put the pot of iguma (on the fire). Then the iguma is *boiled.*

Azo Mfini: (Plantation).

Betata basa leua bo dia inifini (our fathers did not make plantain villages), *n'afan eto bè* (because their land was near at hand, *i.e.*, near the regular village). *Fañ b'anyege infini ne bo bidji binne* (Fañ likes plantain village to make good food, *i.e.*, because thus they get good food). *Bikon e djel ine, betok* (Plantains in town have (one) small). *Infini O ne djal moe afan bibè* (Plantain village is a good town (because) land (*i.e.*, good land) near). *Nson ane afan betata benga to bibè* (Like the land where the fathers were near). *B'angéye infini, ne dzi bidji binné. Mo'mbok a gouevi bstyit: bevok benga sôm* (They like the plantain village (because) there they eat good food. One person kills game (meat) others buy). *Menda infini me vie bo abé* (Houses of plantain villages soon spoil).[1] *Fañ, Ba'dji asas mbôa kidiase* (Fañ they eat a meal of cassava in the morning).

Regarding the *Eki* tabooing certain foods or performance of certain actions as in vogue among the Fang, I learned from a friend and *confrère*, Rev. R. H. Nassau, D.D., M.D., of Gaboon, that the *Eki* of the Fang is precisely similar to the *Orunda* of the Mpôngwe. Dr. Nassau is a veteran missionary of thirty-seven years' African experience, and he is always ready to help others who are sufficiently interested in the natives to inquire about them. I know of no one on the West Coast more willing or eminently able than he for imparting information regarding the people among whom he has laboured.

XI.—*Anthropophagy.*

Cannibalism prevails among the Fang beyond question, and only fear of the law keeps him somewhat in check. I am able to speak of the Fang as anthropophagi; not alone from information gathered, but from having once had the opportunity of visiting a town two days after a victim had been killed and eaten.

This town, named Olunda, is on the right bank of the Nkomo river, about 60 miles from the seat of government in the Congo Français. Whilst visiting the town Nenge-nenge (the island of islands) in the autumn of 1898, a native trader named Arkendengi, employed by a British trading house at Gaboon, informed me

[1] It is very true that houses having plantains growing near, soon rot; this is due to the dampness caused by loss of sunlight and heat

Digitized by Google

that a man had been killed and eaten only two days before at the town of Olunda two miles below Nenge-nenge. Old king Kelun at Nenge-nenge confirmed the report, and in compliance with my request, loaned me an interpreter to accompany me to the place.

The tide being favourable, I decided to start without telling my boat boys the reason for my hasty departure. Olunda is quite close to the river bank, but upon our arrival the water had fallen so low that the only way to reach the town was by wading knee deep in mud up the bank. The people eyed our boat and myself in particular with marked suspicion, and much talking was indulged in during our landing. The headman was the most villainous looking specimen of a Fang I have ever met; he was well built and very muscular, but his face was extremely ugly and brute-like: he had only one eye, and an evil-looking one it was. He wore on his head an old red worsted trade cap, and smoked a dirty native clay pipe.

The object of my visit was well hidden, and we chatted on various matters in the palaver house. When I expressed a desire to walk through the town and treat any of his sick people, the headman said, "No sick here, people all away, let us talk in the *abeng*" (palaver house). However, without giving him any notice I presently left the palaver house and walked out into the main road, and the crowd followed. The headman repeatedly assured me that the town was not worth seeing; but I strolled leisurely along. Half-way through the town I noticed a quantity of intestines strung out to dry on sticks, and to the great annoyance of the headman and people, I made an examination of them which convinced me that they had been removed quite recently from a human body. I was assured that thay were *entrails from a deer* and were being dried for the purpose of covering gourds to hold gunpowder. I then told the people the reports I had heard, also that I knew the intestines then drying were human, and accused them of cannibalism. They were very indignant, and declared, as all Fangs do, that their tribe never eat men. "Oh no, people in the far bush did, only bad Fang did so." A few moments later I picked up a human clavicle in the palaver house and took it away with me, threatening to report the matter to the Government.

In the palaver house of this same town was a boy of about sixteen years, in chains, held as a hostage. I arranged to return in a few days and try to bring the lad to our mission station, but upon my return I again stopped at Nengi-Nengi, and then heard that the boy had been killed and eaten shortly after my departure.

I am inclined to believe that the reason for eating human flesh by the Fang is the result of a craving for animal food. The victims are generally males captured either in war, or members of other tribes waylaid and killed while journeying in the bush.

A Fang man told me that once he ate "some man" because he was persuaded to, and that it "passed goat far" (much superior to goat). He added, "I never do

Digitized by Google

so now because I known it's wrong." His latter statement I gave very little credit to.

Fang who admitted to me that "bad Fang eat men, but not the people of their town or tribe," asserted that all parts of the body are eaten; that the victims are not considered as sacrifices to any gods, but that the bones are used for *biang* (medicine).

Human flesh does not form part of the regular food of the people, and to a certain extent the natives seem ashamed to admit that "other Fang eat men"; they never admitted to me that any of *their tribe* did so.

XII.—*Religion, Fetish or Biang (medicine).*

These anthropophagi have some idea of God, a superior being, their *Tata* (father) *a bo mam mesese* (he made all things). *Anyambi* is their *tata* and ranks above all other Fang gods, because *a'ne yôp* (he is above, *lit.* lives in heaven). The Fang have other or minor gods, the greatest of whom was *Sekôme*, and many Fang say *Sekôme* and *Anyambi* are one and the same god; hence the saying "*Sekôme anga kôm mam mesese*" (Sekôme he made (arranged) all things). The following is a list of Fang minor gods:

Nzame.
Mabeka.
Nkwa.
Sekôme (reported as being Anyambi).
Ube.
Nzame begat Mabeka.
Mabeka begat Nkwa.
Nkwa begat Sekôme.
Sekôme begat Ube.

The Fang have no religion in the generally accepted meaning of the word, for it is mostly made up of an unlimited and disconnected chain of superstitious beliefs.

The key-note of the superstitious beliefs of the Fang is that the Present and Future is filled with innumerable numbers of spiritual beings. The great spirit *Tata* (father) *Anyambi* or *Sekôme* is considered indifferent to the wants and sufferings of men, women and children. I do not believe that worship is directed in any way whatever to the spirits of Present and Future, the natives seeming rather to consider propitiation, exhortation and supplication as the three things most essential and necessary. The spirits of Present and Future possess to a large degree the better human passions, and also the baser ones. The origin of these innumerable spirits of Present and Future is extremely vague: *Anyambi* or *Sekôme* is credited with having created many; others are the souls of dead relatives, still retaining after death human sensations and desires. The Fang have the same

Digitized by Google

idea as the Bulu regarding two great gods. The *Zambe* of the Bulu is the *Anyambi* or *Sekôme* of the Fang, the *tata* or father of all things; and another god of less power than *Anyambi* or *Sekôme*, who lives in the forests and is so tall that he gathers fruit from the highest trees. Some of the old men and women profess to have seen this god of the forests.

Fang superstition includes transmigration; a departed human soul may enter any animal dwelling on top of the earth or in it. There are spirits of health and disease, also a protecting spirit belonging to a clan or tribe, in whose honour a small basket is hung in the palaver house, containing portions of the skull of an albino, whenever obtainable, also portions of the skulls of a relative and a chimpanzee, human hair, nails and bones. This fetish or *biang* is called the *Biang Akamayong*. Most Fang have a cabalistic word assigned to them by the *ngangan* (witch doctor), and this word is used as a prayer. During the new moon, dances are nearly always indulged in, and the songs usually addressed to the spirits of Present and Future. Local spirits need constant propitiation; a native passing in his canoe a spot where a local spirit dwells, as a large rock, will pay his respects by casting a piece of his food into the river, or when in the forest a few stones or a piece of *mbôa* (cassava) is laid at the root of some great tree.

Wooden idols are not plentiful among the Fang tribes living along the rivers; they are seen more in the palaver houses of the bush towns.

Charms.—These may be only cabalistic words, and under this head of vocal charms must be included the incantations of the *ngangan* (witch doctor).

Material charms.—These are by far the most common; the belief in material charms, fetish, occupies the most prominent place in Fang religious contemplation.

Among the Fang, the English word Fetish, from the Portuguese word Feticio, is *Biang* (medicine). A Fang fetish is any material object which the *ngangan* (doctor) has consecrated and made a fit abiding place for a spirit. What may be consecrated? Anything, absolutely anything; a shell, rag, stone, twig of a tree, horns, nails, etc. The horns of small antelope and large deer are filled with resins, nails, human hair, faeces, etc. To bewitch a person it is necessary to give the *ngangan* a piece of the hair, nail, a portion of the food or a drop of blood of the person to be bewitched. A Fang is most careful if he cuts himself to see that only friends and relations approach him until the bleeding has ceased, and hair when cut is usually burnt without delay. As mentioned in the section of this paper on food, every child during infancy is subjected to certain rites which constitute his or her *Eki*, prohibiting the child from eating a certain kind of food or performing a certain act. Thus far, the superstitious beliefs of the Fang and Bulu are precisely similar, and I gathered from Dr. Nassau at Gaboon many facts connected with the people among whom he laboured, the Mpongwe, which showed that they also held superstitious beliefs very nearly, and in some cases precisely similar to those of the Bulu and Fang, the only difference being in the

Digitized by Google

name, the *Eki* of the Fang being the *Orunda* of the Mpongwe. One day when ou a journey among the people, I asked an old headman to share with me a chicken my boy had prepared for supper; the old man seemed pleased at my invitation, but asked the boy if it was a hen or cock fowl. Upon being informed that it was a cock, he declined to eat any of it; that was his *Eki.* As previously stated, I do not believe the natives worship the spirits of Present and Future, but to a certain degree ancestral worship does exist. A Fang places the skull of his father in a curious receptacle of bark, worshipping it, killing fowls and making blood offerings to it, and in many ways the whole matter somewhat resembles the worshipping at graves and before ancestral tablets as practised in China. The natives often pray to their father's skull before talking a large war palaver, or the purchase of a new woman. As worshipping departed ancestors is the chief duty of a faithful Chinaman, so making offerings and prayers to the departed father's spirit before the skull constitutes the great Fang fetish, or *bieti.* Wooden idols, *biyeme,* of men and women are made in a manner which makes the sex extremely apparent; yet whenever I have seen these figures in towns, the people did not seem to regard them as obscene, but as truthful representations of the sexes. I feel sure that to some extent, at least, phallic worship is practised among the Fang. Spirits are everywhere; in rocks, trees, forests, and streams; in fact, for the Fang, this life is one continual fight against spirits corporal and spiritual.

A peculiar belief regarding dreams is that when a person sleeps the soul often wanders away, and its experiences on these journeys are made known to the sleeper by dreams. After death the soul may inhabit any kind of animal.

Fetish Biang (medicine).—Fetish means anything; leopard teeth, human finger nails, hair, wood, iron, herbs. The article used as *biang* or fetish, has no intrinsic value, it is only valued because of connecting its owner with a spirit which can aid him. The leopard tooth fetish is supposed to impart the bravery of the leopard to its owner. Fetish is a spirit or combination of spirits manifested in material things.

Dili Mkuk.—To murder a person and save his skull as a fetish, or use the skull as medicine to bring women, guns, goats or goods. The people will make offerings to the skulls calling them by the names of persons killed. It is said that these prayers are always answered as desired.

Biang e Soli (hiding medicine).—A man goes and takes leaves of trees, and cuts them up. He says, "I have cut up leaves of trees" (or high grass, bushes). The women shell gourd seeds and mash them. They catch a fowl, kill it, and put it in the pot. They also put in the pot the medicine leaves, and the mashed gourd kernels. They put the pot on the fire, and boil (its contents). When they have boiled it, the medicine is cooked. They take the medicine pot off (the fire). They go and put it by the side of (*afuə*) the back of the *bieti.* The man who has put it there says to the *bieti,* other people want to kill me. He takes away the medicine pot. He opens the *bieti* basket. He takes a small piece of the bone (instead of this say to the woman and children he takes the excrement of the

Digitized by Google

bieti). He brings it. He eats the fowl. When finished, he takes a bone of the fowl and the excrement of the *bieti*. He cuts his nails and his hair. He ties (all these things) up in a bundle or packs them inside the horn of a small deer and keeps it.

When a man goes on a journey he carries this medicine with him. Another person cannot see him as he journeys.

This is the *Biang e Soli*.

Biang-nkama.—The people get up and take machetes and cut a clearing. When they have finished the clearing is open and bright. If a man has died and been long in the grave, they take his bones, and lay them out on the ground. They cover them over with earth. They take other bones, and cut them up into small pieces. They put (these pieces) in a basket: they put in also red dye, and scrapings from the bark of trees. They close up the basket. If they go to war, they carry the basket (suspended by a cord from) the shoulder. They take the red dye which is in the basket and smear the body with it. If an enemy (literally, a person) fires a gun (at them), they will not be pierced (by the pieces of iron pot used as bullets).

This is the *Biang-nkama*. Do not tell it to women or children; only to grown real men—for it is tabooed.

Nzake Bukun.—Fang make it thus. If a man makes witch medicine, he kills his brother and other people. They say, let us make *nzake bukun*. They take a corpse, and go with it to the bush. They cut bush. The bush is clear and open. They sweep clear the place which they have cut. They lay down the corpse in the place which they have swept. They dig plenty of dirt, and make it in the shape of an elephant (over the corpse). They make the trunk, the tusks, the eyes, the legs, the tail, the ears. They finish and return to the town. They say, we have made *nzake bukun* (*nzake* means elephant). They say if a man goes out to kill by witchcraft, he will die. If a man wishes to kill another with poison, he will die. If a man lies with a woman in the daytime he will die. Let not a woman eat a pig. And so they say, they have made this fetish, the *nzake-bukun*. When they have done so, if a man lies with a woman in the daytime he gets sick. They go and scrape trees in the bush; they bring water from the river, and put the scrapings in the water. They catch a fowl outside and put it in the medicine-water. They touch the man's body over with the fowl. And so that man, they heal him from his fetish-sickness. Then he is well.

This is *Nzake bukun*.

Biang-abationg.—If a man has married two or three women, and loves one, but dislikes the others, the latter feel badly. They make *biang abationg*. When they go to pass their faeces, they take a very small piece of their faeces. They rub off the grease from their skin, and mix this grease with the small piece of dung. They put it (the mixture) on the drying-shelf (over the fire). When it is dry they mash it to powder, and put it in the neck of a gourd. They take also a shrub called *abatoñ* (known only by women) and put it in a small gourd (not the neck of

Digitized by Google

gourd mentioned above). They put oil in it. They keep it hidden. No one else is allowed to see it.

When the woman cooks food for her husband, she takes the medicine, which she puts in the neck of the gourd, and puts it in her husband's food, then his heart is changed. In the evening the woman smears herself with the *abatoñg*, which she had put in the small gourd. When she and her husband lie down, if she touches her husband, the medicine which she has eaten makes his heart change. Though he liked her before, now he loves her on account of the *biang-abationg*.

This is the *Biang-abationg*.

Biang-mikal (adultery medicine).—People go and scrape medicine in the bush. If they come with the medicine, they put it in the pot. They put water in the pot. They go and catch a fowl. They cut the fowl's neck; they put the blood in the medicine with the scrapings from trees. They take medicine that is in the water, they pour it on the person's head. They also take a certain medicine called *ngwcia* and rub it on the face of the sick person. They again rub it on his belly. Then they have cured the person of the *minkal*. The fowl used is not to be eaten by the sick person, others may do so. Then he is healed.

This is the same medicine used to detect adultery. If a person commits adultery with another man's wife, and then speaks a lie denying the affair, the person accused must drink the *biang-mikal* to show the people he is innocent. If he is guilty the medicine makes him sick, and he dies or trouble comes to his people. If guilty, medicine is made to call the curse back.

This is the *Biang-mikal*.

Biang-ndona (medicine for young men, eloping medicine).—If a person goes on a journey and sees a virgin, he courts or loves her. Then the virgin accepts him. He and she go and lie down. The young man says, "Let us go in my town." If the virgin does not accept, then the young man tries to persuade her. The virgin says, "I go later." The young man says, "If you go later, give me hair for a souvenir." Then the virgin scratches over her heart. She takes the hair of her head and the blood from the scratch over her heart and gives it to the young man. He goes to his town, he says, "I'll first make medicine." He takes the hair and the blood. He takes a small piece of witch medicine. He also takes plenty of leaves. He puts the small piece of witch medicine with the leaves. The hair and the blood he also puts in the leaves. He mixes all in the leaves. He hangs them in the *bieti* basket. He says, "*Bieti*, I want to marry a woman. Take her for me." This eloping medicine hangs one day. In the morning he cuts medicine and puts it on top of a tree. He leaves the medicine on top of the tree. He goes again to the young virgin. He says, "I have come, I come to take you." The young virgin says, "I will go to-morrow." He sleeps. The young man when day breaks says, "Let us go." The young virgin says, "I will surely go." Then the young man elopes with the young virgin; he comes with her to his town. Father of the young virgin he comes vexed. The young man kills a goat for the father of the young virgin. They finish eating the goat. He (the father) sleeps one day. Next morning the young man

Digitized by Google

gives him (the father) the *beki* (dowry). The father of the young virgin takes the goods to his town; the young man remains in possession of the woman.

They marry with *biang-ndoma*, eloping medicine thus.

This is *Biang-ndoma.*

Biang-akong (war medicine).—Told me by Fam-deu, a Fang, Esisis clan, at Foulabifong, Nkomo river, April 19th, 1898. This *biang* was illustrated to me; a leopard tooth is the *Biang-akong.*

Make a bowl of war medicine, of leaves, roots, and bark. Call all people of the town. Drop the leopard tooth into the medicine. If the point of the tooth *looks* toward the people we have a palaver (trouble) with, then we must go and fight and we will win. If the root of the tooth points toward the people we have a palaver with, then we must *tabe si* (sit down) or our enemies will win if we go to fight them.

This is the *Biang-akong.*

Biang-akamayong.—This *biang* is the protector of the tribe or nation (*ayông*, tribe).

Told me by Esôya-ôvum, the headman of Foulabifong on the Nkomo river, who sold me the complete set of the *Biang-akamayong* belonging to the dead headman "Commisan." I present this *biang* for your inspection this evening. The tin canister was obtained from a white man and is used in place of the usual basket to carry bones in. It contains portions of the skull of an albino (male), portions of the skull of a *mon nguri*, young chimpanzee, red powder and a variety of native medicine.

This *biang-akamayong* is always carried by the headman of a town during war.

A bell hangs from the bottom of the canister containing the bones; it rings when the headman walks.

Nko.—The small horn belonging to the *biang-akamayong* has *ngom* (porcupine tail) in it, also native medicine. It is used to cure people having witches. A bowl of medicine is made. The *ngom* is dipped in the medicine bowl and the sick person sprinkled with the medicine. Then the witch departs.

At this point the headman Esôya stopped talking. He said, "The children who have gathered around your house must go away; no real man dare talk about the *biang-akamayong* before women and children." I told the children to go and Esôya continued.

The whistle.—This is part of the *biang-akamayong*; it has been cooked (boiled) in the medicine bowl and has great power when used by the headman in calling the men together after a fight.

Moul.—This is the large horn with a piece of looking glass on top. This horn contains much medicine, and next to the bones is the most important part of the *biang-akamayong.*

The two small antelope horns, and the small bundles of medicine, are *biang e soli* (hiding medicine); it makes the person carrying the *biang-akamayong* invisible to the enemy.

Digitized by Google

The skin of a bush cat is part of the *biang-akamayong* called "Nsin."

The Mvang.—A triangular piece of iron filled with medicine, used to keep away witches, is also part of the *biang-akamayong.*

Biang-akong or *biang-abal* (war medicine).—This is also part of the *biang-akamayong*, and the shots from the guns of an enemy are of no avail.

One other important fetish hangs with the *biang-akamayong.*

A piece of very hard wood. Only a certain kind of woman is selected to find this wood; she is called a special or *selected* woman on account of certain peculiarities connected with her, *e.g.*, she always fails to catch fish, she may try all day but will not succeed in catching fish. The husband of such a woman, after intercourse with her, fails to catch fish the next day, he also fails to work. This is the kind of woman always selected to find this wood; it is hard wood, she is a hard woman, and she is called *Emunega ane alert* (the woman who is hard). This medicine is also called *biang-akong*, and shot from the guns of an enemy will not harm.

This is the *Biang-akamayong.*

XIII.—*Witchcraft. Evus.* (*Witch.*)

If a person goes out to make witch (witch medicine, or play witch to harm others) he dies. The people take him to the backyard. Other people say, "We want to take the witch." If the corpse is a female, they open the belly. If the corpse is a male, they open the heart. They see the witch, they take it. If they bring the witch, they lay it on the smoke shelf. It dries. When finished drying they say, "We will use it as medicine."

This is *Evus* (witch).

Cursing dead Relations.—Written at Foulabifong, Nkomo river, April 13th, 1898. Told me by Ôvôn; fully confirmed by Ogandaga and Interpreter Roby.

E'kanesong (to curse dead relations).—This is a Fang custom. A man has a palaver with another, or goods stolen. He desires to get even with the thief. He calls a friend and curses his friend's dead relations, saying,

"Go and kill that person for me, or go and make him pay me goods; if you do so, I will then pay you for having cursed your dead relations." It is a serious matter to have dead relations cursed, and the friend feels very bad. He must do as bid, or he is branded as a coward, and after he has completed his task he then makes claim for payment.

Nge me bā jam dili, nge me ta minbin (If I do it, may I see the corpses [of my people]). A Fang way of swearing an oath.

Ami ye mimbim mia, yinga me bat (My friend, by the corpses of your relations, kill those people for me).

Notes on *Ebômeda* (a curse).

Ilong z'ayoge (a curse that kills).

Digitized by Google

Vazege me ilong onga lôm me (Take away the curse you have [sent] put upon me).

Vazege me bibomeda (Take away the curse).

Vazege me biyoge (Take away the curse).

Bôt bene mbômeda eb Anyambe edjam e mam mebē môa (People are cursed of God on account of their sins).

XIV.—*The Ngi.* (*A Fang Secret Society.*)

To members (*Bemvon*) the following things or *bityi* are forbidden :—

Bityi :—

1. To go and make or play at witch (make *evus*).
2. A male fowl is not to be eaten (shared) by two men of different clans.
3. Fish called *ngole* must not be partaken of with a woman.
4. Only the initiated are permitted to eat the fish called *ngone.*
5. Only the initiated may witness the Ngi dances. A woman who attempts to witness an Ngi dance will sicken and die.
6. Only the initiated must know about the bones used by Ngi.
7. A member of the Ngi society is not permitted to sleep on his back.
8. Food refuse must not be destroyed by fire.
9. To spit in the fire is against the law of Ngi (not permitted).
10. An uninitiated person will die if embraced by an Ngi.
11. To kick over rotten wood, logs, or forest stumps, is forbidden.
12. To cut a stick half through in the bush, and then bring it to town and break it, is forbidden. It must be cut through and the two pieces carried.
13. To kick the feet together after getting in bed, for the purpose of removing dust, is forbidden.

The violation of any of these mentioned *bityi* will bring misfortune and death on the *bemvon* (member).

Ngi means gorilla among the Fang; Nji means gorilla among the Bulu. The Bulu have the Nji secret society, which is reported as being precisely similar to the Fang Ngi; it came to the Bulu from the Fang.

XV.—*War.*

During a tribal war all adults act as warriors. There is no regular organisation of fighting men. It is a typical guerilla warfare. Parties of young men go forth at night to attack towns; others watch the forest paths to shoot men passing and women going to work in the gardens. The Fang are noted for their love of war; they are the most warlike people in all West Africa. When a tribal war is on, a headman frequently goes out with a raiding party to attack the town; he carries with him the *biang-akamayong* (protecting medicine of the tribe). The usual mode of attack is as follows: Having decided to attack a town, the party of men (usually ten or

Digitized by Google

fifteen) take their flint-lock muskets, heavily loaded with trade powder and a handful of broken iron pot (iron trade pots) or small stones, and creep up close to the town after dark. Two men try to enter the town unobserved; if they succeed, then they knock at the door of a hut and say, "We are strangers travelling; give us fire and food." Directly a person inside the house opens the door, both men discharge their guns into the house, and immediately run for the bush toward their comrades. The whole town is soon in pursuit, and unless careful they run into an ambuscade prepared for them. A fight may occur, but more often the attacking party return to their town in triumph, shouting: "We are real men, we are real men, we have been to town, we have shot a man (or woman), we are men —real men." There is great rejoicing in their town, and a dance follows. If the palaver is a serious one, the town is often stockaded with split logs placed vertically in the ground; huts are likewise stockaded. Poisoned bamboo spikes are buried in the forest paths to wound the feet of an enemy. The weapons used and relied on to-day are flint-lock muskets. Spears are rapidly falling into disuse. The cross-bow is only used for shooting birds and small bush cats. It is a mistaken idea that the arrows used with the cross-bow are poisoned. Shields are not used. The chief causes of war are disputes over women, hence called "women palavers," and these feuds may last for years. Prisoners are often permitted to starve to death, and are occasionally killed and eaten. Owing to a bitter feud it is often impossible for the women to work in the gardens or fish on the river, the consequence being a great scarcity of food. In Foulabifong, where I resided, a woman palaver lasted over ten months, and the three adjoining towns were in a state of famine. A prisoner was nearly starved to death, and I had to repeatedly plead for him. During these feuds many women are shot while walking the paths. The Fang think it quite correct to shoot a woman; they say, "It is always *safe* to shoot a woman because she cannot shoot back." Prisoners are frequently exchanged, others are held as hostages.

Abal (war). Translation.

If people are going to war they go in crowds. If they approach near the town (of the enemy) they hold a council. An old man (one) he says thus: We will go to fire when? Then the others say, We will go in the night. Then they stay (sit) there until night. Darkness comes, and they light a torch. Then two or three people go to the town, and the other people remain in the bush. If the people who went to the town find people sleeping, then they point their guns inside a house and fire. Then people die. Then they go back running to meet the other people. Then they all gather in one place and return singing to their own town. Then they beat the drum and rejoice. Then the people who remained in the town say: Tell us the news as you went. Then they tell the news. Then the headman sits down and tells all the people in town that a person must not go anywhere alone. Then all the people hear, and all sit down (remain around their town to await events).

Digitized by Google

Ngang (Doctor). Translation.

The Ngang (witch doctor) prophesies war. If the war comes and is in the bush, then the doctor takes medicine wrapped in bush cat skin called *mebup*, and medicine in horns. He holds the horns in his hands. He counts the horns; he hangs the *mebup*. He says to the *mebup*, I say thus: No person must go to the forest. If a person goes anywhere the enemy will kill him. If a person says, I will not listen to the doctors' talk, I will go and do my work; then if he goes, the enemy kill him. If they kill a person, they take the heart and put it in the *abup*. They take an old witch and put it in the *abup*. Then if the doctor prophesies, the witch speaks from inside the medicine. The heart of the person, it talks.

XVI.—*Hunting Traps.*

The Fang are skilful hunters, but they justly give the credit of the chase to the *Nqui* (dwarfs). I have been told that a dwarf will go hunting in the bush and return with meat after a hunting party has returned unsuccessful from the same locality; the dwarfs have great patience. If while hunting in the forest a man sees a deer, he shouts for assistance: others come and help hunt. If the deer is killed, all claim a share, after one-third has been given to the man who first sighted the game. This is the custom when a man walking unarmed in the forest sights meat, and calls for aid. Meat killed by a regular hunting party is carried to their town and divided. Dogs are used to hunt game, the dogs wear wooden bells around the neck, sometimes the bells are made of iron. Flint-lock guns are used when hunting. Before a hunting party starts out it is the custom to make *biang nzali* (gun medicine), and to place the guns in it; this makes them shoot straight. The natives imitate very cleverly the calls of certain animals and birds for the purpose of decoy. Occasionally they drive game into an enclosure called *olam*. Spears are seldom used in the chase. The crossbow is used for shooting birds and small bush cats.

Poisoned arrows are not used with the crossbow. Pitfalls for game are dug and covered with small branches and leaves; pigs and small deer frequently fall into them. A Fang never attempts to hit a bird on the wing. In firing the flint-locks the gun is not carried to the shoulder, but held by the stock in front of the body, the butt being on a level with the waist. Game laws are unknown.

After a successful hunting expedition the whole town indulges in a feast, men, women, and children eat until gorged; after a period of rest dancing commences and is kept up throughout the night.

Olam (Trap). Translation.

They take small trees and bamboo leaves and bush rope, and make a long fence. They leave holes for the traps and holes for the pitfalls (*i.e.*, opposite the

Digitized by Google

places where they are going to build these respectively), large bush rat, porcupine, squirrels, die in the traps; deer, gazelle, antelope, large deer and pigs die in the pitfalls. The animals which die in the *olam* are these. This is the *olam.*

XVII.—*Burials.*

Death is never considered as due to natural causes. Disease followed by death is due to *evus* (witch). It is not considered unlucky to attend a dying person. The body is usually left in the house until burial. Embalming is not practised. Mourners smear white clay on their bodies and wear necklaces of pineapple fibre for one moon (month). A coffin is not used and the body is buried in the sitting posture. After burial the grave is levelled off as is the case almost throughout West Africa; the only difference between the burial of a headman and a common man is in the amount of visitors and mourning, and the quarrelling over his goods. Wives of a dead headman remain in mourning from one to three moons (months). The witch doctor, *ngangan*, usually performs a post mortem to find the witch. I attended a post mortem on an old woman. The witch doctor ripped open the abdomen with an old rusty knife, grasped and cut away the uterus and holding it up to the crowd declared "Six witches!" The crowd passed the word "six witches," and spoke the praises of the witch doctor. Relations usually continue to mourn or wail for one moon while inside the house or at work in the gardens. The most common wail is *Ô nan Ô! Ô tat Ô!* (Oh mother! Oh father!).

XVIII.—*Akôm.*

This is a dance. It is not *biang* (medicine) nor is it *eki.* It is, however, practised by men only. The women must not see it. The latter stay within doors, and only hear the words which the men speak outside. The men speak with artificial voices, so that the women cannot recognise who it is that is speaking. (*Fam a kobo ne kiŭ zie nkôt.*) To make the artificial sounds they use a membrane (*ten*) which encloses the young of the spider (*ndenbôa*). This they spread over a hole (about ¾ inch diameter) near the small end of an elephant tusk (*mbang nzok*) from 1 to 2½ feet in length, attaching it with beeswax (*abē*) or a liquid which is obtained from a plantain stalk fresh cut. This juice is called *akirl.* It possesses an adhesive property. The man blows on the large end of the ivory. A curious sound then issues through the membrane so that the man's voice cannot be recognised. This instrument is called *mbang akôm.* The act of playing on the instrument is called *e kobe akôm* (*e kobe,* talk). The performer sings songs; the words are distinctly heard. He sings and all others sing responsively (*a ye bo'besegese b'aka*).

Many songs are used in *akôm.* Here are three specimens of them:—

(1) *Benza b'abete kobo? Beso benga wog mvé.* Who speaks any more? (*i.e.,* Be silent, let no one speak.) Others are listening with pleasure (*i.e.,* to the performance).

Digitized by Google

Response by the audience: *Nangekobe.* This word seems to have no meaning but to be simply used as a responsive utterance.

(2) *Akôm ke yeye zazam.* Let not the *akôm* sing my song. This supposes that another similar performance (*akôm*) is going on in the neighbourhood, and the performers in it are urged not to make use of the song used by those in the first (*akôm*).

Response: *Ziazia, akôm ke yeye zazam.* The word *ziazia*, like *nangekobe*, appears to have no meaning, and to be simply used as a responsive utterance.

(3) *Ke bele me nzok zam ne mabata.* Do not catch hold of my instrument (tusk of elephant) with *mabata, i.e.*, because you have the sickness *mabata* (a kind of sloughing phagedina).

Response: *Ziazia*; *ke bele me nzok zam ne mabata.*

XIX.—*Abnormalities (Natural Deformities), Albinism, Erythrism.*

During my residence among the Fang I saw five albinoes (shown on lantern slide). The natives say of these albinoes: "They are white, but *not real* white people." They are treated fairly well; their ever restless eyes cause them much ridicule and annoyance. I know of only one being married. They are not long lived. After death the skull of an albino is greatly valued for medicine, especially for placing with the *biang-akamayeng* (protector of the tribe).

Erythrism is occasionally met with. A red-haired Fang lived in the town of Jam-anen (large affair); his skin was chocolate colour, but his eyes had a pale pinkish colour. The first sight of a red-headed black man surprised me very much.

Hare lip is very rarely seen.

One case of hermaphrodism came under my notice, a Fang male; he was looked on as an *ngangan* (witch doctor) of great power, and was much reverenced.

Deformations (Artificial Deformities).

A. *Facial.*—The triangular nasal cartilage is frequently pierced. This practice is mostly indulged in by women. Bars of bamboo are inserted or porcupine quills. It is considered *mbung* (handsome).

The lips are not pierced or deformed in any way.

The ears are pierced and ear-rings worn.

Fetish is also suspended from the ears.

B. *Dental.*—Males file the upper and lower incisors to a sharp point. The only reason given is, "it is *mbung*" (handsome).

XX.—*Fang Proverbs and Sayings.*

Ma kôm wam nlem, I think in my heart.

Me ka, I am gone, said in taking leave.

Digitized by Google

A skukut nlem, he has a foolish heart.

A nyeɣl nyôle zie, he likes his own body (is conceited).

Azô dili tyineba mvus, this matter (palaver or quarrel) is pushed back (*i.e.*, is to be forgotten).

Wyen njil, w'yen ndē, môt ekôge yen owaban, you see your grandson and your great-grandson, but you cannot see the next generation.

Kunge eso a le we enseki, go; your father calls you down the street (a hint to leave).

Asong avoti da bôl anu, one rotten tooth spoils all (a person once caught lying cannot be trusted).

Me si mone kal meyong mese, I am not sister's son to all tribes (*i.e.*, I am not everybody's servant).

Ejô avoge ane ejima, another day is beautiful (like our saying "Every dog has his day").

Mon kon a'yen avoti, mon môt meyen m'bei, you can see a ghost once but a person twice.

Mon mie meduk m'bei, mon nqui aduk avorti, you can cheat a Fang twice, a dwarf once (here the word *mie* is used for *Fang*).

Jô side avoti, there is more than one day (my turn will come).

M'sidie monge, I am not a child.

DISCUSSION.

Mr. CROOKE, after acknowledging the value of Dr. Bennett's researches among a most interesting people, called attention to the attribution of the art of metallurgy to the dwarf race, which corresponded with European folk-belief. He dwelt on the respect paid to the Palaver House; he gathered that a fire was kept there perpetually burning, though the cult of the sacred fire seemed to have been forgotten. It would thus correspond to the early Aryan institution of the house where the sacred fire was tended, which survived in the Greek Prytaneum. The author of the paper seemed to have failed to appreciate the motive of the rites of passing widows through fire and flagellating them. Judging from the analogy of similar rites in India and elsewhere, the object was to free the woman from the ghost of her late husband, which was supposed to cling to and possess her.

Mr. FITZGERALD MARRIOTT asked whether the witch-doctor who wore the white mask was a Ngi, since in certain parts of West Africa the witch-doctor was independent of the tribal society, while in others he was a member. He also asked whether the dance, in which Dr. Bennett says is played the "Embankong" (?) musical instrument made from an elephant's tusk, is in reality a species of secret society; for women and children are not allowed to see it, and it takes place by torch-light after dark. Thus it might answer to the Zan-gbe-to of the Slave Coast, which is a species of police society for seeing that every one is in his house after 9 o'clock at night, or like the Ayaka society of a district near the Kwa Ibo river, which sees that all the fires are out by a certain time. These societies also dance, sing and shout; therefore, as there is usually something beneath West African dances, it is probable that the players and dancers are a secret society or that there is some explanation for the existence of the dance. He also remarked

Digitized by Google

that the rules of the Ngi society, which Dr. Bennett had read them, were a great step to obtaining the secret ritual of the society. Dr. Bennett had mentioned various ibets or taboos peculiar to this society; Mr. MARRIOTT said that these were to be found in most secret societies. For instance, in the Kofôn(g) of the little-known Limba tribe of Sierra Leone, one of the taboos was that of sitting on an axe, or other sharp instrument; another prohibition was that of allowing any one to hold a glowing firebrand to their face. These actions were tabooed because they were included in the ceremony of initiation. He knew other instances, and therefore he concluded that the taboos mentioned by Dr. Bennett were probably actions that formed part of the ritual of initiation or progression in the secret grades.

ORDINARY MEETING.

MAY 30TH, 1899.

C. H. READ, Esq., F.S.A., *President, in the Chair.*

The Minutes of the last Meeting were read and passed.

List of books lately presented to the Institute was read, and the thanks of the Meeting was expressed. Mr. Ling Roth's *Aborigines of Tasmania* was mentioned more especially.

Elections of RICHARD J. A. BERRY, Esq., and F. SWYNNERTON, Esq., as Fellows of the Institute, were announced.

The PRESIDENT then introduced Colonel R. C. TEMPLE, who proceeded to read his paper, "On the Beginnings of Currency," which was well illustrated by lantern slides. He also exhibited a valuable collection of Agri beads.

Discussion was carried on by the PRESIDENT, Professor RIDGWAY, and Mr. GOWLAND, the latter exhibiting a collection of Japanese currency in support of Colonel Temple's views.

After a short reply from Colonel TEMPLE, the evening closed with a vote of thanks to the lecturer.

Digitized by Google

BEGINNINGS OF CURRENCY.

By Colonel R. C. Temple.

[with plates xviii to xxi.]

In a lecture lately delivered before the East India Association on the "Development of Currency in the Far East," I purposely passed over the discussion of the commencement of the subject, and considered only, in view of the time at my disposal then, that part of which relates to the development of the forms of currency in the Far East, existing at the present day and bearing an established relation to coined money or to bullion, in the sense of a metal used for money. On this occasion, however, I had purposed to take in hand the part that I then omitted, but the vastness of the general subject has again obliged me to confine myself within very narrow limits. I can really only now discuss the three points of barter, currency and money in their earliest and simplest forms, confining my evidence in this discourse chiefly to that from the Far East, and on the screen to some leading objects on the subject to be found in the British and Oxford Museums.

The special points I am obliged to leave to some future opportunity are the rise of bullion weights out of measures of capacity, the development of exchange in its modern commercial sense, the rise of coin out of bullion currency and of legal tender out of coin, and the extreme value to mankind of legal tender, to my mind one of the finest achievements of human reasoning powers.

With this much preface, let me commence with what we ought always to settle upon, when about to discuss a subject like that now before us, clear definitions of the main technicalities we shall have to use. If we are to arrive at any definite ideas to-night we must be sure of the meanings of such terms as barter, currency and money. Barter is exchange of possessions pure and simple. I exchange to-day my grain for your fruit and to-morrow my adze for your knife; that is barter. But when our daily transactions become so far complicated as to require some other article in common domestic use to be interposed between the grain and the fruit and between the adze and the knife, *i.e.*, a medium between the articles bartered, we have set up a currency and a medium of exchange. Thus: you and I and the rest of our tribe have all got cocoanuts in varying quantities and can find a use for them every day. I want fruit and you want grain, but instead of exchanging my grain for your fruit I give you six pairs of cocoanuts for the fruit I want, and later on you come to me and give me five pairs of cocoanuts for the corn you want. In the same way I give you my adze for cocoanuts and you give me your knife for cocoanuts. Here we are bartering through a medium and cocoanuts are our currency. When we become a little more civilised and proceed to make purely conventional articles, usable only as a medium of exchange,

Digitized by Google

we have set up a system of money. For currency consists of articles, real or imaginary, used for account, *i.e.*, for measuring the relative values of different articles of use. So many cocoanuts make one adze; so many cocoanuts make one knife. Whereas money consists of tokens convertible into property. So many imitation iron spear-heads can buy an adze; so many can buy an axe. Exchange has, it is true, come to have in modern civilisation a secondary sense, but this belongs to quite a different part of the subject.

Now, I hope I have made my meaning clear to you. For our present purpose, barter is the exchange of one article for another; currency implies exchange through a medium; money that the medium is a token. And I wish you to observe particularly that neither currency nor money involve necessarily the use of metals, much less of gold and silver. In fact gold and silver have come to be used for money, and currency has come to be expressed in terms of gold and silver money, merely because civilised man has long found out that these metals are the most convenient materials to be found on the earth as media of exchange, and that the most convenient way of measuring relative values is to express them in terms of the media of exchange. I emphasise this point, because we shall have to deal to-day almost entirely with money and currency that are non-bullion, *i.e.*, not of gold and silver.

Barter, pure and simple, does not require much explanation, and I shall confine myself now to one plain illustration thereof from an old book, perhaps not very well known, Davies's *Translation of Olearius, Voyages and Travels of the Ambassadors to Moscovy, Tartary and Persia about* 1635. The writer apologises for the digression from which I am about to quote, and well he might, for he proceeds to talk about Greenland. However, we may be glad of this, as he tells us not only what is quaint, but exactly to the present purpose. He says:—

"There is no money in the Countrey, being so happy as not to know the value of Gold and Silver. Iron and Steel they most esteem, and prefer a Sword or a Hatchet before a Golden Cup, a Nail before a Crown piece, and a pair of Cisers, or a Knife, before a Jacobus. Their trucking is thus: they put all they have to sell together, and having picked out among the Commodities that are brought to them, what they like best, they put them also together and suffer those they deal with to add or diminish till such time as they are content with the bargain."

The points for our consideration in the above narration are two. Firstly, the writer talks of "the Countrey being so happy as not to know the value of Gold and Silver." I cannot deal with this point to-day, but I am in a position to produce evidence, which I think would convince you of the fallacy of this popular error. Had Ovid been possessed of a deeper insight into the springs of action he would have written:—"Effodiuntur opes irritamenta bonorum," and not have misled for ages a world of unthinking followers by some truly unhappy lines. Secondly, you will perceive that the trucking was perfectly to the content of each party to the bargain, *i.e.*, both to the civilised European and the savage. Each side, mark you, viewing the bargain according to his own interest. I want to draw your particular

Digitized by Google

attention to this fact; because so many imperfectly informed travellers, non-trading residents, missionaries and others have so very often unjustly vilified European traders in their truck with savages. No doubt the civilised trader has come away with for him a magnificent bargain, out of which elsewhere—but elsewhere please remember it must be—he is going to make a fine thing. On the other hand the savage, too, has come away more than satisfied, because with what he has got from the trader he can procure from among his own tribe something he very much covets, which the articles he parted with could not have procured for him. Both sides have profited by the bargain from their respective points of view, and the trader has not taken an undue advantage of the savage, as he is so often said to do.

I will explain this by an instance or so. In the Mergui Archipelago off the coast of Burma, there lives in a very poor way a group of wild Malay families, known as the Selungs, which is systematically exploited in mercantile directions by certain Chinamen, whose proceedings have been characterised by one eminent writer thus:—

"These poor creatures [*i.e.*, the Selungs] gather 'black coral,' eaglewood and so on, which they exchange for a little cloth, paddy, tobacco, and perhaps 'the smell of opium' now and then, valued at not a fifth of what they give in exchange."

By a much earlier observer we are told that "they scarcely know the value of money, and are therefore the losers in the bartering trade with the Chinese and others who visit them. Perhaps, they think themselves the greater gainers, since they give products of no use to them for others of vital importance, and are thereby enabled to maintain a wild independence."

Now, I ask you to contrast these two statements. We are told first that what the Selungs give in exchange to the Chinamen is valued at not a fifth of what they get; valued, that is, elsewhere in the civilised world. But the savages' point of view is correctly put forward in the earlier statement. What they get by barter is of value to themselves; what they give is of none. As between civilised man and the savage the bargaining is so far fair and reasonable. It becomes unfair, when, as we know from other sources, the traders take advantage of this people's delight in strong liquors and make them drunk, and then conclude unconscionable bargains, by which the savages part with their produce for an insufficient quantity of articles of use to them.

A distinct apprehension of this point seems to me to be essential and to be so often wanting that I feel impelled to give another clear instance. My late friend and genial brother officer, Gen. Woodthorpe, in his account of the Lushai Expedition of 1871–2, wrote thus:—

"A large number of Lushais had accompanied us as far as Tipai Mukh and were busily employed in driving a few last bargains. They brought down large quantities of india-rubber, which they eagerly exchanged for salt, equal weights, and as the value of the rubber was more than four times that of the salt, any individuals who could command a large supply of the latter had an excellent opportunity for a little profitable business."

Digitized by Google

Now, please observe that the profit was not altogether that of the civilised man on this occasion, if the matter be looked at from the savages' point of view. For Mr. Burland, an experienced civil officer with the Expedition, made in the blue-book of the day an observation on this very transaction, which has been independently confirmed by Mr. Soppitt, another friend now departed. Mr. Burland wrote:—

"In former times these tribes made all the salt they required for their own consumption from salt springs, and they say that to make enough salt for the requirements of an ordinary family, a man's labour was required for three months. A man can now collect sufficient india-rubber in one month to exchange with Bengalee traders for more than enough salt to last him and his family for a year. So that a man who chooses to occupy himself three months in collecting india-rubber will, by bartering the same for salt, have a large surplus of that article, with which to trade with the southern tribes, who, they say, are willing to give one maund of rubber for a quarter maund of salt." The point could not be put more clearly.

For evidence in the same direction I must allude to several cases, recorded when military and other expeditions along the frontiers of Assam and Burma have found that British coins could only be treated as articles of barter. During the Lushai Expedition of 1871–2 a rupee having been given for a fowl on one occasion the savages would only thereafter exchange fowls for rupees, though the rupees could be got back again for the base metal coin of a neighbouring semi-civilised State. In 1893 amongst some of the Shan Tribes along the Chinese border rupees could not buy a pony, though small silver coins of the same number, and of course of much less value to us, could. Amongst other Shans, copper coins alone could purchase anything, any kind of silver failing to be attractive, and there being no difference in the value placed upon a rupee and its eighth part.

The reason in each of the above cases is the same and clear. The savages in question had a use respectively for the base metal, the small silver and the copper, but none for the rupee, which to us was of very greatly the highest value. The adherence of the Lushais to a rupee as the exchange equivalent of a fowl was due to an accident. Having got into their heads by a chance that to us a rupee was the proper exchange for a fowl, they stuck to it from an unreasoning suspicion that, unless they did so, we were in some unascertainable way cheating them; and their subsequent exchange of the rupees so acquired for what was to us base metal rubbish was from their point of view to their advantage.

Of course every one knows that trade will accommodate itself to any circumstances and evolve a *modus vivendi* between any two apparently irreconcilable parties. I could give from notes, if I had the time, many quaint and instructive instances of the working of barter as a mode of trade between savages and civilised man, but I will content myself with one only from my own experience. I once had to acquire for Government about 8½ acres of cocoanut-covered land in the Island of Car Nicobar in the Bay of Bengal, I first carefully and literally walked

Digitized by Google

the boundaries, fixing them approximately with a prismatic compass to the great awe of the sellers, and then gave them without hesitation what they considered as much as they could dare to ask, namely, 12 suits of black cloth, 1 piece of red cloth, 6 bags of rice, 20 packets of China tobacco, 12 bottles of Commissariat rum.

But a far more instructive instance of evolution is to be observed in our dealings with the less civilised peoples inhabiting Burma and neighbourhood. The Government has to preserve order by means of fines and some sort of pecuniary penalties or enforced compensations, and it has to collect revenue in some shape or other, and for these purposes it must have perforce some means of apportioning values. But the people only understand barter and the notion of relative values is entirely rudimentary. In these circumstances, in Assam, among the Kacharis, the British Courts have drawn up for their own use a regular scale of fines and revenue in terms of the domesticated animals kept by the people,—*e.g.*, a man's revenue would be assessed, not at Rs. 10 but at a big buffalo ; a fine would not be fixed at a quarter of a rupee but at a cock and two small hens. So amongst the Chins in Burma a customary present would not be Rs. 10 but a full-grown hog, and a fine or a compensation for injury would not be Rs. 5 but a silk jacket. Even the old native government of Burma had to adopt a system akin to this, for at the time of the First Burmah War of 1824 it levied fines, as a variant of the very ancient Eastern notion of slavery for debt and partly also as a kind of blood-money, on the value of the human body, on the following scale in terms of British money :—

	Rs
A new-born male child...	10
A new-born female child	7½
A boy	25
A girl	17½
A young man	75
A young woman	83½

I ask you to bear this point in mind, as it is actually the very commencement of that product of human reason we have been calling "currency" ; the necessities of civilised governments obliging them to set up, and educate populations up to, the idea of a currency, where none before existed. For when once the savages we have been considering have become accustomed to domestic animals and articles being given fixed relative values, a currency in the most elemental form thereof has been started. I also ask you to remember this point, because this particular development, being natural and necessary, is inevitable and not confined to wild peoples, and for this reason I shall have to revert to it again later on.

It will be fresh in your minds that I have instanced the use of cocoanuts just now in generally explaining currency as distinguished from barter and money : currency being the use of an article commonly required as the medium for exchanging actual property between buyer and seller. I did so because of cir-

Digitized by Google

cumstances within my own experience. In the Nicobar Islands, which are still in my official charge, from all time—and we have definite knowledge of the Nicobars from the days of I-Tsing in the seventh century to those of Marco Polo in the thirteenth, and through all those of the earlier European travellers to the present day—cocoanuts have been and still are the currency of the people. They and the trees that produce them are the staple products of the country and the most valuable possession of the inhabitants They play a great part in finding them in food, drink and materials for housing, clothing, and furniture. They are thus in constant and daily use and they are employed for currency, *i.e.*, for measuring the values of other articles and as the medium in exchanging them. I will give you a strong instance of this from what I have myself seen.

On the 5th April, 1896, the people of Mûs in Car Nicobar had occasion to buy a large racing canoe from the people of Chowra Island, and this is what they did. They proceeded to value the canoe at 35,000 cocoanuts, but they are a lazy people and had no intention of fetching such a large quantity down from the trees in their possession. So they paid for the canoe in a great number of articles, each valued in cocoanuts, nearly all of which were in their possession as the result of trading in cocoanuts with such foreigners as Burmans, Chinese, Malays, and natives of India. The list of these articles is interesting and goes to prove my point, but I have no time to read it now. It included domestic animals, utensils and implements, cloth, beads, silver articles and even British money.

This transaction induced me to set the local government agent to try and ascertain the approximate value in cocoanuts of such trade articles as the Nicobarese require for domestic and other uses, and his inquiries produced a long list, from needles at 12 coc. a dozen and matches at 24 coc. per dozen boxes to red Turkey cloth at 1,600 coc. the piece. Now, in this list a two-anna bit, which is the eighth of a rupee, was valued at 16 coc. and the rupee itself at 100; but you will perceive that eight times sixteen is 128. Now, the reason for the discrepancy is that the little piece of silver is used for one sort of ornament and the big piece for another sort, and their value in cocoanuts to these people depends on their relative value as ornaments, and not on their relative weight combined with fineness, or, as we should say, their intrinsic value. I need hardly say that the Nicobarese do not recognise coins as a medium of exchange.

How these primitive tribes manage to count and tally cocoanuts in large quantities is an extremely interesting anthropological study, which of course I cannot follow up now, but I hope I have succeeded in making plain to you the first beginnings of currency and the mental attitude of man in a primitive stage of civilisation towards this question.

There is in existence a mass of evidence from all parts of the world showing how savages, semi-savages and some civilised peoples employ natural articles of use as currency, though, as already stated, I confine myself now chiefly to the far East for the instances I have to adduce.

Thus, rice has been used up till quite recent times as currency in daily

Digitized by Google

transactions in many outlying places about Burma and the neighbourhood; and in some parts of China this is the case no doubt still, and it was so in Kashmir in the sixteenth century. Cloves were currency in the Moluccas at the same time, and fish in some other parts of the Malay Archipelago, at any rate in 1820. Salt is another article that has been used, as noticed by even the earliest travellers, in China, Burma and the hills all round and in many parts of India. Up to the time of the first Burmese War in 1824, at any rate, cotton was the currency between Arakan and Burma. Of livestock I need hardly say much, as the use of these for measuring values is a very widely spread instance to the point. But chickens were currency in the Maldives off the south-west coast of India in the fourteenth century, and pigs in Tibet and oxen in Central Asia in much later days. The Lushais of the Assam-Burma borders reckon values in buffaloes, and from the Khonds of Eastern India—the people of the Meriah human sacrifices—we have a fine bit of evidence in the middle of the present century; for Macpherson, a name that will never be forgotten among Anglo-Indians for his efforts in putting a stop to the Meriah abominations, tells us in 1845, that "the value of all property is estimated by the Maliah Khonds in 'lives,' a measure which requires some adjustment every time it is applied; a buffalo, a bullock, a goat, a pig or a fowl, a bag of grain, or a set of brass pots, being each, with anything that may be agreed upon, a 'life.' A hundred lives on an average may be taken to consist of 10 bullocks, 10 buffaloes, 10 sacks of corn, 10 sets of brass pots, 20 sheep, 10 pigs, and 30 fowls."

But my tit-bit of evidence from the East is from Turkestan in the present day, where mulberries are the currency, just as till quite lately bitter almonds were currency for small values in many parts of civilised India. I have kept it to the last, because the story thereof carries me on to my next point; and you will perceive at the same time the parallel it affords to what I have said of the Nicobars. Quoting from a recent Russian *Report* we are told of Darwaz, which is in Bokhara, that "the inhabitants of Darwaz plant mulberry trees, and the mulberry is their sole means of subsistence. In summer they eat it raw and in the winter in a dried state, in the form of flour, out of which they make a kind of flat cake. Their dress they obtain by bartering the mulberry for rough matting and sheepskins, and even their taxes are paid with the mulberry. In fact the mulberry is the measure *tubeteika*, the currency of Darwaz, and many Darwazis never know the taste of bread all their lives long . . . The grain measure is the *batmân* = 45 *tubeteikas*."

But observe, when the dried mulberries are made up into *tubeteikas* or measures, the currency begins to cross over the Rubicon, on its way to becoming a token and hence money. It is in this act of passing over from currency to money that our subject presents its chief difficulty.

Before parting with the consideration of this particular aspect of the subject, I would like to remind you that non-bullion currency has not by any means been confined to savage, uncivilised or semi-civilised communities. In the early history

Digitized by Google

of our Colonies we find that the civilised communities set up by the English in remote localities often began, and sometimes long continued, their trade dealings in a currency of local staple produce, and that too by express law; just as Prof. Ridgeway has explained in his *Origin of Currency* was the case in Iceland about 1420 in the matter of stockfish or dried cod, and as we have already seen is also the case with the British Courts established in the wilds of Assam and Burma. The great well of evidence on this head is Chalmers' *History of Currency in the British Colonies*, and it is a flowing one, though I have not time to extract more than is just sufficient to illustrate my present contention.

The non-bullion currency of the early colonists all through the seventeenth century covered a great variety of articles: tobacco, corn, wampum, sugar, rum, cotton-wool, mahogany, molasses, ginger, indigo, skins and so on. In 1643 in Massachusetts wampum strings were made a legal tender, and tobacco was rated under penalties at 3*s.* per lb. in Virginia in 1618. So sugar, tobacco and other things were made into monetary standards in the West Indies in the seventeenth and eighteenth centuries. Dried codfish was a circulating medium in Newfoundland till much later. Even as late as 1708, tobacco, to quote an old *Report*, was "the Meat, Drink, Cloathing, and Money" of Maryland; and of tobacco as a currency there is a good story told about Virginia in 1620–21. In that year 150 "young and uncorrupt girls" were imported as wives for the colonists and were rated originally at 100 lbs. of tobacco or £15, but subsequently at the increased price of 150 lbs. of tobacco or £22 10*s.* And we are told "that it would have done a man's heart good to see the gallant young Virginians hastening to the waterside when a vessel arrived from London, each carrying a bundle of the best tobacco under his arm, and taking back with him a beautiful and virtuous young wife."

In Barbados the colonists commenced with a currency chiefly in cotton and tobacco, but also in indigo and "fustick-wood." About 1640 sugar became the currency and was legal tender from 1667 onwards, coined money being established in 1715. In the Leeward Islands, books and accounts were kept in terms of sugar, and even as late as 1740 it was officially stated that "the value which is put on sugar, rum, cotton, and other commodities, the growth of the Leeward Islands, is called currency there." The variety of "the other commodities" was considerable from time to time; tobacco, cotton-wool, indigo, ginger, molasses, and so on; and their rating was fixed by the government, just as we saw the Indian and Burman officials rating livestock and so on for the wild Lushais and Chins. This went on more or less till 1784. In British Honduras, one of the most unwieldy currencies yet invented, mahogany in the form of logwood, lasted till 1785. In the Bermudas, which was the first of the colonies to start a coined currency, tobacco was the currency until 1658.

Now, it is from the collation of such facts as those above given that we perceive first, that in similar conditions the mind of civilised and uncivilised man works in much the same directions and produces much the same results;

Digitized by Google

and that, though, if I had the time, I have evidence to produce that mankind is really much better off with gold and silver coin of the realm as his currency, it is not at all necessary in a condition of comparative isolation, such as that of savages or a semi-civilised people must always be in practice, for currency to consist of metal.

I now propose to tackle our difficulty—to plunge into the Rubicon and see if we cannot find a clear way across. The cause of all our trouble—of the eddies, whirlpools, currents and other dangers in our path, is the fact that every section of mankind in every place and at every period, being a product of nature, has never developed along a single line. He has always been subjected to and affected by outside influences. He has picked up a little here, snatched a little there, and engrafted what he has caught up on to the tree of his own ideas, with the result that its subsequent growth has become complicated or even diverted from its original tendency. A strong example of this is the Hindustani language; its basis, genius if you like, is Hindi, the superstructure is chiefly Persian and partly Arabic, with grafts all over it of scraps of very many other tongues. Our own tongue is in much the same case. Anglo-Saxon, a term implying a growth, mark you, at base with a ten per cent. infusion of Latin and Greek, another appreciable infusion of Norman and modern French, and sprinklings of every other language under the sun. It is just the same with currency, in that common wide sense of the term which covers both barter and money.

No semi-civilised group of men has been at any time entirely isolated, and in tracing the development of currency anywhere, the influences of contact with the outside world are everywhere and always more or less plainly apparent. Barter is the natural basis of all dealings between man and man, and the setting up of a common useful article as a medium of exchange—of a currency in the restricted sense of this discourse—is a natural development. But somehow a community under our observation has learnt to count after a fashion. Somebody has taught it how to measure, or in some forgotten way it has been led on to a distinct point further in upward development and has acquired the art of measuring by weighment. Whenever this has happened, and one or more or all of these things have happened nearly always to any community we can now study, complications have ensued. The result being, of course, that in any given concrete instance of barter, it is not by any means to be clearly separated from currency, and *vice versâ*. Some of you must have already perceived this in the course of my remarks this evening. It must have occurred to you that some of my illustrations of barter are perilously near currency, and that the aptness of some of my cases of currency is jeopardised by their close approach to barter. Just so. In my view, in illustrating by examples a natural development, this is inevitable. It is a phenomenon of nature, of which the explanation I offer is that just given.

However, the passage from barter to currency does not present any great difficulties practically, but between currency and money, between the employment of a domestically usable article and the employment of a domestically non-usable

Digitized by Google

token as the medium of exchange, there are many difficult currents, eddies and whirlpools, and the proper channel is by no means always clearly to be seen. Let me hope that I shall now in your judgment take you over as safely as I have in my own judgment taken myself.

Let us commence our passages by following the safe current of roughly measured articles in every-day use as the medium of exchange. In the fourteenth century Friar Odoric tells us of a rich man's revenue in China being stated in sacks, *i.e.*, "heavy ass-loads" of rice, revenues there being, until quite lately, and perhaps still, estimated in sacks of rice. In Burma, under the native Government, they were always estimated in baskets of rice, just as they were in Kashmir in the sixteenth century in the days of Akbar the Great. All this is on the same principle as the use of the rolls of tobacco, with which, as you have just heard, the young Virginian paid for his bride's passage out from England, though the measuring is not, owing to the comparative civilisation of the parties concerned, so accurate or regular. I think also that the currency in skins so well known in Ancient Russia, North America and China may be safely placed in the category of roughly measured currency, though the measurement is effected in a manner, and is based on principles, differing from those on which the measurement of the rice and tobacco was effected and based.

Out of the current of roughly measured currency we may glide almost imperceptibly into the equally safe current of carefully measured, and, so far as regards measurement, regulated currency. Of this the tobacco rolls of Old Virginia are equally as much an example as they are of roughly measured currency, giving us an instance of the difficulty in some cases of arriving at a distinct attribution to class. The *tubeteika* is, however, a clear instance; 45 *tubeteikas* or mulberry cakes make by local law or custom a *batmân* or standard measure. And when we come to study our old friend Marco Polo's sayings about "Tebet" in the thirteenth century we find the same thing:—"The small change again is made in this way. They have salt which they boil and set in a mould, flat below and round above, and every piece from the mould weighs about half a pound. Now 80 moulds of this salt are worth one *saggio* (say a sixth of an ounce) of fine gold, which is a weight so called." In other words 80 moulds of salt of a definite size made a *liâng* or Chinese tael of the period. The experience of the Dutch in the Malay Archipelago in 1596 was much the same in the matter of cakes of sago.

In 1710 Alex. Hamilton, the traveller, procured evidence to precisely the same effect from Borneo, which he thus quaintly states:—"Beeswax is the current Cash in that Country. It is melted but not refined, and cast in moulds of an oblong Square, the Breadth about Two-thirds of the Length, and the Thickness Half the Breadth, and a Ratten Witby to lift them by, cast in the Wax. A Piece weighs a quarter of a Pecul which comes to in English Weight, 34 Pound, and a Pecul is valued in Payments at 10 Masscies or 40 Shillings Sterling. They have also for smaller Payments Pieces of Eight to a Pecul and Sixteenths and for smaller Money they have Couries." In the above pregnant passage the term "pecul" is of great

Digitized by Google

interest in another phase of the development of currency, for it means fundamentally a man's load; the masscie or mace, properly *mâs*, was a small fixed weight of gold. But the point just now is that moulds of beeswax of certain defined sizes equalled certain defined weights expressible actually in money.

Tea, in bricks and cakes, is another similar form of currency in natural produce, which has been widely noticed by travellers and others, and has what naturalists call a wide distribution, for it is found from Shanland and China to Russia. The use of tea bricks and their apparent close approach to money is well put by Baber, the celebrated traveller, writing in 1882:—"A brick of tea is not only worth a rupee, but in a certain sense is a rupee." Some 20 years earlier Clement Williams, a name once well known in Burma, wrote:—"The only kinds apparently known in the market at Bamo are the flat discs of China tea and the balls of Shan tea. The discs weigh 20 tickals each; seven piled together make a packet, which used to sell at 1½ to 2 tickals [of silver, say 5 shillings]." This is a very neat bit of evidence for our present purpose.

Passing from natural produce in conventional cakes, bricks, balls, discs and what not to articles that are entirely manufactured, there is for the present discussion a valuable reference to a currency in cloth in a letter from John Jesse, dated 20th July, 1775, to the East India Directors. This old Oriental worthy writes:—"I was informed the quantity [of pepper] that year [1774, in Borneo Proper] was 4,000 peculs, cultivated solely by a colony of Chinese settled here, and sold to the junks, at the rate of 17·2 Spanish dollars per pecul, in China cloth called congongs which, for want of any other specie, are become the standard for regulating the prices of all commercial commodities at this Port." And then he proceeds to relate a little hankey-pankey by which the contractor cheated the workmen of about half the produce of their labour; a proceeding I would like to remind you that is very much easier with a non-bullion currency or money than with a legal standard gold and silver coinage, which is in reality, so far from being a curse, one of the greatest blessings man's ingenuity ever brought about for the benefit of his kind. But, however that may be, the congong must have been a piece of cloth of an average length and size, and therefore it belonged to the category of carefully measured articles, domestically usable and employed as a medium of exchange, and that is enough for us just now.

An instance of an odd taste in currency, for which there is much evidence in the Far East from Burma, Yunnan, Shanland, Siam, Malay Archipelago and Borneo, among other places, is the use for that purpose of glass jars and bottles. The Chinese noticed this of the Burmans 1,000 years ago, and in 1870 and 1874, during expeditions in Upper Burma, one writer notes that "what money could not secure empty pint hock bottles did. For four of these I got eleven eggs and a brood of jungle fowl chickens." Another noticed that the Shans placed "an inordinate value upon empty bottles." Any kind of liquor bottle was good, soda-water bottles were better, red hock bottles best of all. In the very last Consular Report from Yunnan, for 1898, we are told that in the hills these "bottles are

Digitized by Google

accepted in preference to silver." The bottles being "good quart bottles of clear glass." Here we have, you will perceive, a ready-made careful measurement, which the users of the currency are unable to effect for themselves, though they are thoroughly alive to the value of the constancy in the size respectively of the hock, soda-water and other liquor bottles.

The pleasant and safe currents of roughly and carefully measured articles have carried us pretty far on our way, with just a little roughness over the matter of the Virginian tobacco rolls, but our further journey is through rougher waters, though I do not think we need apprehend any fear of coming to grief. De Morga, the famous and exceedingly intelligent Governor of the Philippines early in the sixteenth century, after explaining that the usual way of trade was in general barter, says:—"Sometimes a price intervened, which was paid in gold, according to the agreement made; also in metal bells brought from China, which they value as precious ornaments. They are like large pans and are very sonorous, and they strike upon them at their feasts and carry them in the vessels to the wars instead of drums or other instruments." We are here still in the region of a currency of the same sort precisely as the glass bottles of the Shans, but when we come to look into the story of the big drums of the Karens of Burma, of which two fine specimens are in the British Museum, the conditions are much less clear. Of these Gen. Macmahon, a slovenly and discursive but withal most experienced writer on the Karens, has said:—"Among the most valued possessions of the Hill Karens is the kyee-zee, consisting of a copper or spelter cylinder of about a quarter of an inch in thickness, averaging about 2 feet in length and of somewhat greater diameter at one end, which is closed with the same kind of metal, the smaller end being left open. They are ornamented in a rude style with figures of animals, birds and fish, and according to size and volume of sound are valued at from £5 to £50. On the outer circle are four frogs. They have distinctive names for ten different kinds, which they pretend to distinguish by the sound. In the settlement of their quarrels and in the redemption of the captives, the indemnification always takes the shape of a kyee-zee or more with perhaps a few buffaloes or pigs as make-weights. To such an extent does the passion for the possession of these instruments predominate among the more secluded tribes, that it is said instances are by no means rare of their having bartered their children and relations for them. The possession of kyee-zees is what constitutes a rich Karen. No one is considered rich without them, whatever may be his other possessions. Everyone who has money endeavours to turn it into kyee-zees, and a village that has many of them is the envy of other villages, and is often the cause of wars to obtain their possession." These Karen drums, then, are of varying size, are used in making large payments, and represent wealth. If they are put to domestic use, as for feasts and what not, they must be classed as currency; if they are to be looked on merely as tokens of a certain value, and kept only for making large payments when due or only as representatives of wealth, then they are money. They are in fact just on the line between currency and money.

Digitized by Google

It is a far cry from the Burmese border to Angola, but I must take you there for a parallel, from the remarks of Pyrard de Laval in 1601, who tells us:—"As for the small money of Angola, it consists only of little shells, somewhat like those of the Maldives [*i.e.*, cowries] and little pieces of cloth made of a certain herb. These pieces are an ell in length, more or less, according to the price. And when they go to market to buy their goods they carry no other money." Now, if these ells of cloth were for personal wear, they were thus used for currency; if they were as I understand, never worn, they were made for money. You will perceive what a very short distance there can be between currency and money, and how nearly these two articles take us through difficulties to the opposite shore. But I can show you that it is possible to get nearer still without actually landing thereon.

Referring to the salt moulds of Marco Polo, Yule, in his invaluable edition, tells us that Ramusio has stated that on these moulds "the Prince's mark is printed and no one is allowed to make it except the royal officers." Later on I will show you on the screen a tea brick from Russia stamped with something like a Government or official mark. Currency cannot get nearer to money than this, for if we define a coin as a lump of metal money stamped to indicate its exchange value, and coin of the realm as such a lump stamped to show that it is a legal medium of exchange, we have reached in the salt moulds something very like a coin of the realm in salt. But remember that as both the salt mould and the tea brick can be put to an ordinary domestic use they are still currency and not money.

Having brought you I hope in safety so far, I am going to take you a little step further in smooth water, so that you may at least touch the opposite shore. The clearest instance I have yet come across of the exact point where currency ends and money begins—of the very last act in crossing the Rubicon—is the use of rice in Burma as a medium of exchange, as it has come under my personal observation, supported by that of the British Resident at the now defunct Court of Ava in 1797. Rice is still used, or was at any rate ten years ago used, in this way in Upper Burma in village transactions, but such rice was neither food-rice nor seed-rice, but useless broken rice. In other words it is a non-bullion token and so money, just as much as the imitation hoes, hatchets, knives and so on of the Chinese and other peoples in various parts of the world are tokens of currency and so money.

Another almost universal instance of a non-metallic money proper is the cowry, for these sea-shells, where chiefly used in the East, are not of any domestic use whatever to the people who pass them from hand to hand, and are expressly imported in very large quantities, often from great distances, only for the purpose of a medium of exchange. They afford a clear example of an untouched natural product being converted into money as distinguished from currency.

All these things, broken rice, imitation iron instruments and cowries, properly fulfil the conditions of material for money. They have to be produced, and though fairly common the production is, in the conditions in which the producers live, nevertheless limited, and therefore they can have a token value. To take the least

Digitized by Google

likely instance. Rice has to be cultivated; the amount of cultivation depends on the capacities and numbers of the cultivators; of what is thus produced a fixed quantity must go for food and another fixed quantity for seed; only what is spoiled in handling and what is over can be used for money. The production of broken rice is therefore distinctly limited and at the same time sufficiently abundant. This is why to isolated half-civilised villagers living in certain places broken rice is money. The reasoning that makes it money for them is precisely that which makes gold, silver and copper tokens money for us.

We are now fairly landed in the region of money, and I would point out that what has kept our course straight is holding on to the definition we started with, viz., that currency implies that the medium of exchange is a domestically usable article, and money that it is a token not domestically usable. It is just this definition that is the test by which we can separate metal articles, when used as a medium of exchange, into those that are currency and those that are money. When the iron-smelting Shans of Zimmè pay their revenue in the elephant chains, spear-heads, cooking-pots and other ironware which they make, they are using currency; but when similar Shans along the Mekhong use lozenges of ingot iron for making payments, they are using a real money. By the way it may interest some here to know that the only proper description of this often mentioned money that I know of is to be found in Aymonier's *Voyages dans les Laos*. So also the usable iron hatchets or handbills of the Nassau Islanders, found in use in 1792, were currency, while the thin, *i.e.*, imitation and useless, as I will presently show by examples, iron knives of the Kachins and Shans of the Assam-Burma border of about the same period were money. Thus, too, the gold and silver boxes, bowls and necklaces, and the quainter and prettier gold and silver leaves, flowers and even trees of the former Shan, Malay and Burmese tribute formed a sort of currency and not of money.

Such are the arguments by which I would seek to prove my points out of the books and my verbal evidence, but before closing my remarks I would note just one more point as to which confusion and mistakes may easily arise. In 1241 the Emperor Frederick II, son of Barbarossa, and perhaps the grandest historic figure of all in the Middle Ages, issued a temporary and honest leather currency. In the present century among other places, for local reasons, parchment and paper currencies have temporarily been established respectively in the Cocos-Keeling Islands and in the Andamans. From the ninth to the fifteenth centuries a most remarkable paper currency was very widely established in China. For a long time past there has been, and probably there still is, a noticeable currency in porcelain gambling tokens in Siam. Now, not one of these has any connection with the beginnings of currency, and they arise out of a state of things far beyond the scope of our present subject, for their existence is dependent on conditions only possible in a high state of civilisation, as they are each and all based upon commercial credit, an idea not possible to mankind when placed in the surroundings we have been assuming. While on this point, it may be as well to remind some here that the

Digitized by Google

early Chinese writers on paper currency understood the true commercial nature thereof as clearly and distinctly as would the Governors of the Bank of England at the present day.

Having thus talked to you out of my own experience and the books I have been studying chiefly about the Far East, I will show you some slides, exhibiting however articles and objects from many parts of the world, by way of clinching the arguments I have adduced. I am here indebted to the kindness and knowledge of four friends, and the resources of two Museums. It is due to Mr. C. H. Read and Mr. Edge-Partington of the British Museum and to Professor Tylor and Mr. Balfour of the Oxford Museum that I am able thus to try and convince you through the eyes as well as through the ears. I am also indebted to Mr. Levin for his kindness and courtesy in explaining and lending for to-night samples of his unrivalled collection of African trade and other beads. And now let me remind you that I have not to-night made any kind of attempt to explain either currency, money or exchange as we modern Europeans understand and use those terms, for they are very far removed from the beginnings we have been talking about. Also in this lecture I make no sort of pretence to exhaust the points I have taken up, and I have done no more than give such examples as seem to me to properly illustrate them, confining myself to definitions and beginnings and taking no count of developments.

Description of the Plates.

Plate XVIII.

Fig. 1 is the feather money of Santa Cruz, South Pacific. It consists of two bands of vegetable fibre covered with parrot feathers. There are two boards which are placed in the middle of the bands above and below. The whole structure is carried in a bag and is indivisible. It is real money, *i.e.*, it is used for no other purpose than as a medium of exchange. It is, however, only used for expensive purchases, as it is difficult and slow of manufacture, and therefore of great intrinsic value in itself. This should be borne in mind, as the Fig. 2 probably records a mistake made on "high authority."

Fig. 2 is a photograph of feather money taken by Bishop Montgomery at Nelua, Santa Cruz Islands, in front of the house of a trader, and said to be the price of a girl bought as the teacher's wife; but it is nevertheless much more likely to be the trader's capital, as there is very far too much of it to be *primâ facie* the price of a girl for a bride. There is a great number of the feather bands supported on the bamboo or cane and many more on the heads of the natives standing around; and it is doubtful if a girl would be thought to be worth even so much as one pair of the bands.

Fig. 3 is a necklace of red feathers used as currency in Santa Maria, Banks Group, South Pacific, where shell money is not used. In the Torres Islands, where shells for money are not found, their beautiful little arrows are used as currency (Codrington, *Melanesians*, p. 327) Both of these are real currency because they have a domestic as well as a pecuniary use.

Figs. 4 and 6 are strings made from the hair of the ears of the flying fox in short lengths, from New Caledonia, and Fig. 5 is a spear thrower, or becket, with flying fox hair wound round it in parts, from New Caledonia. Now, whether this flying fox hair is money or currency all depends on whether these strings of it are used domestically as ornaments or not. Our information is not complete on this point, though we can guess that it is money from what we know of the Figs. that immediately follow.

Digitized by Google

Fig. 10 is a feather ornament from the New Hebrides, worn by men after making the proper number of feasts and then used as money. This is a fine specimen of the borderland between currency and money, and shows how an article which has been domestically usable passes into the class of articles domestically non-usable on becoming money. Edge-Partington, *Ser.* II, p. 86.

Fig. 11 shows flying fox fur in strings from the Loyalty Islands. This was formerly money, as being an article not used for any other purpose.

Fig. 9 shows honey-sucker feathers from Hawaii, stuck in bundles on strips of cocoanut fibre, just as they are collected. This is currency because in this state the feathers are used as a medium of exchange, but are also used for ornaments, clothing and other domestic purposes. They well indicate the origin of the use of natural products as money, being plentiful and yet limited in production. The limitation was due to the fact that feather hunting was a vocation. The feathers, too, had a relative value according to rarity or difficulty in production. Thus five yellow feathers of the "royal bird," which were all that the bird could produce, were accounted equal in value to a piece of nankeen, which was sold for one and a-half dollars; this would probably represent to the natives at least a pound of our money. (Codrington, *Windsor Magazine*, May, 1899.)

Fig. 8 is a purse and string of shells from New Caledonia. The string consists of very fine shell discs divided by knots on a fine cord. The purse is trimmed with flying fox fur as ornament. The whole is money.

Fig. 7 shows a string of fine shell beads, fifty-four to the inch, characteristic of the Banks Group, South Pacific. It is the highest form of their money, because of the labour involved in producing it, and therefore of its intrinsic value. Edge-Partington, *Ser.* I, p. 151.

Fig. 12 exhibits the tuskshell money of British Columbia. In this case the shell ends have been clipped off and the shells, dentalium, have been strung in eight sections divided by bars of goat leather. They have a pendant made of mother-o'-pearl, from the *haliotis*, or Venus's ear. The two specimens in the British Museum are exactly alike. Ridgeway, *Origin of Currency*, p. 10; *Smithsonian Report*, 1887, Part II, p. 315ff.

The authority on this point is Mr. R. E. C. Stearn (*Ethno-Conchology, a Study of Primitive Money*, pp. 296-334, *S.R.*, 1887), whose remarks on this particular money so exactly show how a shell can be used as money, because while abundant it is yet limited in production, that I pause to give them here. "The tusk-shells are collected in the following manner:—An Indian when shell-fishing, arms himself with a long spear, the haft of which is of light deal; to the end is fastened a strip of wood, placed transversely, but driven full of teeth made of bone. The whole affair resembles a long comb affixed to the end of a stick with the teeth very wide apart. A squaw sits in the stern of the canoe and paddles it slowly along, whilst the Indian with the spear stands in the bow. He stabs this comb-like affair into the sand at the bottom of the water, and after giving two or three prods draws it up to look at it. If he has been successful perhaps four or five money-shells have been impaled on the teeth of the spear. It is a very ingenious mode of procuring them, for it would be quite impracticable either to dredge or net them out, and they are never, as far as I know, found between tide-marks."

It will then be perceived that these dentalium strings of fixed form and number are money for precisely the same reason as the bags of broken rice in Burma. I may add that this article of Mr. Stearn's is generally well worth study in the present connection.

Fig. 13 shows a string of purple wampum beads from North America tagged with British green silk and a mixed string of purple and white wampum beads. The purple beads are double the white beads in relative value as will be explained later on. These are money.

Bead money is not by any means unknown in the South Pacific. The *brack* or

Digitized by Google

barak of the Pelew Islands was made of terracotta in bent prisms, hollow-sided, fine-grained, hard and of an almost glassy lustre. It was very valuable. In the Pelew Islands they had also *bungan* or *pangungan*, a red stone, perhaps jasper, polished like *brack*, and *kalkubut* of agate and sometimes of a hard enamel; both valuable. Common beads of white or green glass were current in four sorts among the populace, while the Kluk clan used beads of polished enamel. Beads of pearl and other sea-shells, red and other stones, nutshells, tortoiseshell, cocoanut and so on are current in various parts of the South Seas.

Figs. 14, 15, and 16 are shell money from Florida in the Solomon Islands, South Pacific. Fig. 14 shows two indivisible fathoms of rough red shell discs in a double row, separated by white discs and tagged at the ends with white discs and mother-o'-pearl and nut shells, which last two are probably charms.

Fig. 15 represents six indivisible fathom strings of white shell discs, interspersed at fixed intervals with dark ones. The white and dark discs have a relative value comparable with our silver and gold. In the Pelew seven sorts of currency are said to be thus distinguished.

Fig. 16 represents four indivisible strings of shell discs of various colours in standard fathoms, forming the regular circulating medium. They are tagged with blue native hair cloth and nutshells, perhaps as charms.

Fig. 17 is a string of shell discs, dark and white alternately, used both for ornament and currency in the Gilbert Islands, South Pacific. The string is tagged at one end with a fringe of similar shell discs. This is currency. This Pacific Islands' disc-money closely resembled the *hawock* money of the Californian Indians, which consisted of clam-shell discs strung together and usually rated by the foot or yard. There is a specimen in the British Museum.

Figs. 18 to 21 show shell money in strings of discs from the Solomon Islands and New Britain, South Pacific. This is made in great lengths and divided up as required. Fig. 18 is a string of fine discs of purple shells, *i.e.*, of the higher value from New Britain, in the British Museum; this is shown as coming from Mioko, Duke of York Group.

Fig. 19 is a string of fine discs of white shells threaded on cane strips. This is money of the lower value from New Britain. The standard length of these strings is a fathom.

Fig. 20.—This is a specimen of the *dewarra* of New Britain, made of small cowries threaded on cane strips in large or small coils. It is the common circulating medium.

Fig. 21 is a divisible string of small discs of white shells, roughly clipped, from the Solomon Islands.

Plate XIX.

Fig. 1 is another specimen of the New Britain *dewarra*, a string of small cowries strung on leaf ribs in large coils and used as money.

Fig. 4 is a string of shell discs manufactured for money only in Susa village in New Ireland, South Pacific. It has a pig's tail at each end and an oyster mother-o'-pearl charm.

Fig. 5 shows fathoms of shell discs, regularly cut, and coloured at stated intervals, indivisible, made for money in the Solomon Islands.

Fig. 6 shows long strings of irregular shell discs from the New Hebrides, South Pacific, interspersed with trade beads: about $2\frac{1}{2}$ fathoms in length and used as money.

Fig. 2 is a string of cowries, called *udang*, used in Borneo; but the shells are not found in Borneo. This is money.

Fig. 3 shows specimens of Borneo plaited fibre armlets, called *unus*, worn by the men and worth, as money, 3 cents of trade dollar money per bundle of fifteen armlets.

Fig. 7 shows a piece of cloth from Formosa ornamented with shell discs and used as an ornament for clothing, but also as currency, passing for the high local value of about five Mexican dollars.

Fig. 8 is a *tridacna* shell armlet from Malanta in the Solomon Islands, said to be used as currency for purchases of high value, but in reality it is more likely to be an article of trade or barter. Oxford Museum; presented by Edge-Partington. See Guppy, *Solomon Islands*, p. 132.

Digitized by Google

Figs. 14, 15 and 16 show cowries of sizes. The point here is that cowries are bought by local dealers wholesale by weight in sacks and retailed by tale, so that the smaller the cowries which the retail dealer can manage to pass, the greater his profit. In India the cowries of currency are large, on the West Coast of Africa they are medium, in the South Pacific they are very small.

Figs. 10 and 11 show the silver shell currency of the Shan native States of Burma, and Fig. 9 the piece of silver known as *Shan-baw*. The form of the snail-shell is, I am informed, partly artificial, thus: silver refined by the ordinary process in a rough crucible will, when very nearly pure, or what the natives call quite pure, effloresce, and if the efflorescence is checked by cold water at the right moment it will assume the shell form. So silver in that form is looked upon as pure and the silver shells pass as currency by weight. Figs. 10 and 11, the shells: Fig. 9 shows the process of manufacture. The specimens are valuable to show the development of thought and manufactured form.

Figs. 12 and 13 are a tamarind seed (*majit*) and its silver imitation, lately used in Burma, under the same name, as a royal plaything in a popular pitch and toss game, but, because of its constant weight and fineness, also as currency.

Fig. 17 shows Venetian beads used for trade in West Africa, and supplied for that purpose by the firm of M. L. Levin, a family which has been in the trade for over 100 years. They are used for money respectively as shown, for purchasing palm oil, ivory, slaves and gold. It appears that these particular beads are not interchangeable, *i.e.*, beads for gold will not buy slaves and *vice versâ*. Wealth in beads for gold will only procure gold and so on. The probable explanation is that with these beads the natives can buy from the European stores what they want according to the intrinsic European value of the beads, which varies considerably and in some cases is high, the intrinsic value representing the cost of production. In the British Museum is shown a quantity of the bead money of King Prempeh of Ashanti in necklaces, rings and armlets, taken from his hoard at the capture of his capital by Lord Wolseley many years ago. These are not shown on the plate, but many of the beads of this hoard are identical with those supplied by Mr. Levin's firm, and to be found in the present Mr. Levin's collection, which I will explain presently. There are in the British and Oxford Museums a good many cards of African trade beads well worth study, supplied by the late Mr. Levin.

Fig. 18 shows wampum beads, hand and machine made. I have already referred to wampum beads being money by law in the early American colonies, and shown strings of them. There is a quantity of evidence as to this in the paper by Mr. Stearn above quoted. The beads were of two kinds, white and purple, usually made from different parts of the same clam shell (*venus mercenaria*); and roughly the purple were double of the white shells in value. But the most interesting point about these beads is this, that so long as they were hand-made, *i.e.*, native made, they were only used as ornaments and so on, and it was not until they were machine-made by Europeans, and so became constant as to size and intrinsic value, that they were used as money by the fathom, the fathom being a term of account at four to six beads to the penny of value or inch of measurement. The plate is from Prof. Tylor's article in vol. xxvi of this Institute's *Journal*, p. 248, and shows the difference in form and drilling between the hand-made beads which were for domestic use and the machine-made beads which were money.

Fig. 19 is a tea-brick used as currency in Eastern Asia and Tibet. The specimen in the Plate is from East Russia, and it will be seen that the brick is made of dust tea moistened and pressed into a mould into which a stamp has been screwed. It bears an official stamp and so is very near to coin in tea as already explained.

Fig. 20 is a disc of leaf-tea manufactured in Yunnan and obtained in Eastern Mongolia. This can be used in pieces for purchases of a smaller value than the whole disc. This is a currency very near to money.

Digitized by Google

Plate XX.

Figs. 1 and 2 show a war shield from Guadalcanar, South Pacific, and its cover: used chiefly for payments of a high value, such as for a wife, and to store as representatives of wealth. They are, as currency, parallels to the Karen drums already explained. Their value in English money is from £1 to 30*s.*

The mat money of the New Hebrides and other South Pacific Islands, of which I have no plate, affords another almost exact parallel. The mats are made in great lengths in folds and their relative value is determined by the number of the folds counted in tens and their blackness or age. This form of money is especially interesting, because it is lent out at interest, showing that it is not necessary to have bullion money, or even easily divisible or separable money, to turn it to personal pecuniary advantage. Codrington, *Melanesians*, p. 323.

Tapa, the bark-cloth money of Fiji, forms something of a parallel also. *Tapa* in masses represents accumulated capital. Ratzel, *History of Mankind*, Trans., p. 246.

Fig. 4 shows a boat-shaped wooden bowl from New Caledonia, interesting chiefly as showing a rough receptacle for shell money. Edge-Partington, *Ser.* III, p. 68.

Fig. 5 is a jadeite adze-blade from Marie Island in the Loyalty Islands, whose inhabitants are cannibals. It represents the price of a fat man for food. This is currency and not money, as it can also be used for the humbler purpose of carpentry.

Fig. 6 is a Navalae ring made of white quartz. These rings are from the New Hebrides and are irregular in size. They are money.

Fig. 3 is a sperm whale's tooth from Fiji, there called *tambua* and used as currency. This is currency, but tooth money has a considerable range in the South Pacific Islands; porpoise teeth and dog's teeth being also used. The dog's tooth for money must be that immediately behind the canines, and when whole and sound it is valued at one, two to five porpoise teeth according to quality, the quality being of course equal to the rareness and difficulty of production.

Fig. 7 shows the eye-teeth of the elk (*wapiti*), which pass for 25 cents of United States money amongst the Shoshone and Bannock Indians of Idaho and Montana in the United States, but only amongst the Indians themselves and not between the whites and the Indians. They are also used for the ornamental trimmings of dresses and for horse trappings, and so are currency.

Fig. 8 is a string of the lower jaws of the flying fox from the Fijis and other Melanesian Islands, used as money.

Fig. 9 is a sperm whale tooth obtained from a whaler in 1822 and used as currency.

Fig. 10 shows the so-called Caroline Islands millstone money—*fé*. This is used in the Carolines for large payments, but is made in the Pelew Islands. It is not really a millstone at all, but a large rough stone disc with a hole in it for carrying. It is made only for money and has no other use. That shown is a small specimen, 2½ feet diameter. F. W. Christian in *Geogr. Journ.*, xiii, 105.

We now pass on to articles made of metal. Figs. 11 to 19 are of iron.

Figs. 11 and 12 are hoes from the Dinkas and Shillooks of the White Nile. They have a fixed value, but are usable otherwise and so are currency.

Fig. 13 is a native spade-blade with a cane withy or loop for carrying, used in Central Africa as currency.

Fig. 17 is an English made spade-blade, imitating the native one. These being usable otherwise are currency. In the British Museum are three iron spades from the Dor, Upper Nile, identical with these specimens from the Oxford Museum.

Fig. 15 is a barbed spear-head from Central Africa of fixed value and usable otherwise: currency.

Fig. 14 is a conventional spear-head from Central Africa used as money.

Fig. 16 is an iron plaque used as a marriage portion from Niam Niam in Central Africa. A girl having two of these allotted to her would have no difficulty in arranging her matrimonial future and would be considered a priceless possession. This is money.

Digitized by Google

Fig. 18 is the well-known conventional Lomami spear-head, 5 feet long, and made to represent high values. Fig. 19 is a conventional Lomami spear from the Upper Congo, 5 feet long. Both of these are money.

Plate XXI.

Fig. 1 are imitation iron axes from the Ogowe River in West Africa. Fig. 2 is a bundle of five or six of these from the same district.

Figs. 5 and 6 are sets of three iron axe blades, imitation, each on a cane fastening, from West Africa.

Fig. 4 is an imitation iron adze from West Africa very like the *hashash* or imitation axe-head money of Kordofan, which runs 40 to the Turkish piastre. There is a specimem in the British Museum. Fig. 3 are similar bundles of imitation spears used by the Nagas of Manipur in Assam as money.

Figs. 7 to 11, money from ancient China, consisting of imitations in iron of well-known objects. The imitations have now, among numismatists, conventional names from their shapes. Fig. 7 is the so-called knife money. Fig. 8 and 9 is the shirt money. Fig. 11 is the razor money.

Fig. 10 is a modern cash. I have shown this as an example of development. It will be seen from the figures that the hole in the cash directly owes its existence to the hole in the handle of the old conventional money, and that the cash itself is all that remains of that old money. It is the convenient tag end that has survived through the ages.

Figs. 12 and 13 are two imitation iron hoes from the Congo, and are money.

Figs. 14 and 15 are two copper ingot crosses, both made in Urua, in Central Africa, by casting in a sand mould. They have a special rib on one side, in the centre. In the course of the down river trade the specimens shown found their way respectively to Coanza on the West Coast and to Tanganyika on the East Coast, where they were procured. They are money.

Fig. 16 is a magnetic iron hoe, called *nguni*, from Zambesi District, East Africa. This is money, no doubt on account of the peculiar property of the metal of which it is composed.

Figs. 17 to 19 shows brass and copper plates and bar iron : all specimens of currency. Fig. 17 is a set of copper plates, apparently from old sheathing, used as a marriage dowry and regarded as property. They are tied together in fours and fastened to a stick : from Nimkish, Alert Bay, N.W. America. They afford a clear parallel to the Karen drums and the Guadalcanar shields.

Fig. 18 is a hammered brass frying-pan, partially conventionalised, still used both as currency and for domestic purposes by the Nagas of the Manipur Hills in Assam.

Fig. 19 is a bar of native-made iron, passing at a fixed value in Central Africa.

Fig. 20. Four copper bracelets, used as a wedding dowry and considered as property ; each married woman has 100 ; from Nimkish, N.W. America, currency.

Fig. 21 is the *unus* or armlet and anklet of fibre already described, worn by all Dyaks in Borneo ; currency, at five to a cent of trade-dollar money.

Fig. 23. This and those that follow are money. This is a ring of European spelter valued at 3*d.* on the Lower Congo.

Figs. 24 and 25 are old copper and bronze manillas from the Bonny River on the West coast of Africa. They are the survivors of the old Roman and European bracelet or *armilla* through the Spaniards. They are now a well-known money in West Africa.

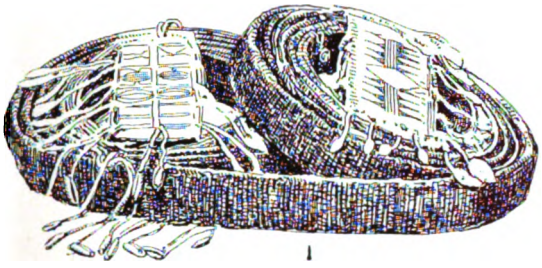
Fig. 26 are English imitation manillas for the West African trade, but they are not current in the Haussa country and thereabouts.

Fig. 22 are iron English imitation manillas for the Eboe country trade, West Africa.

Fig. 27 is an old iron manilla from West Africa.

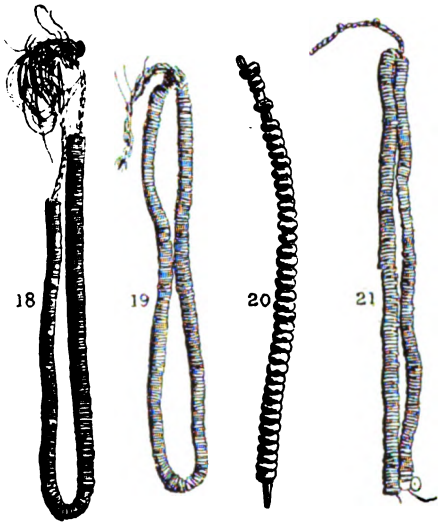
Fig. 28 is a large stone bead for purchasing slaves in West Africa

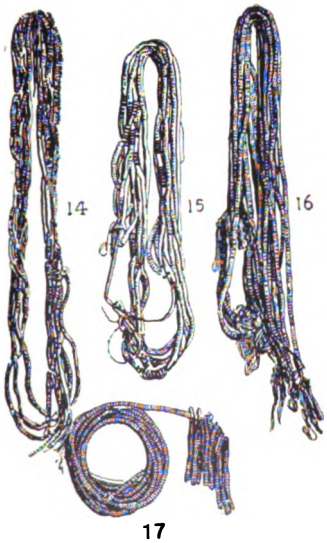
Digitized by Google


1

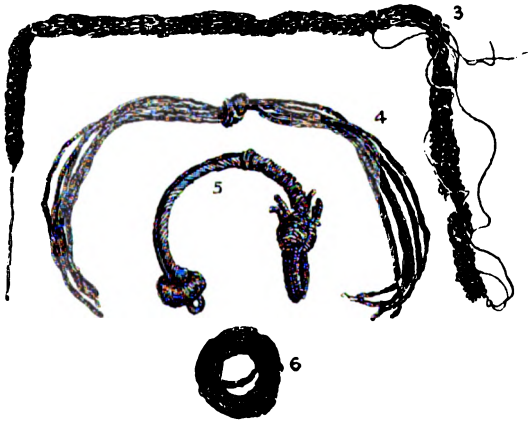



2



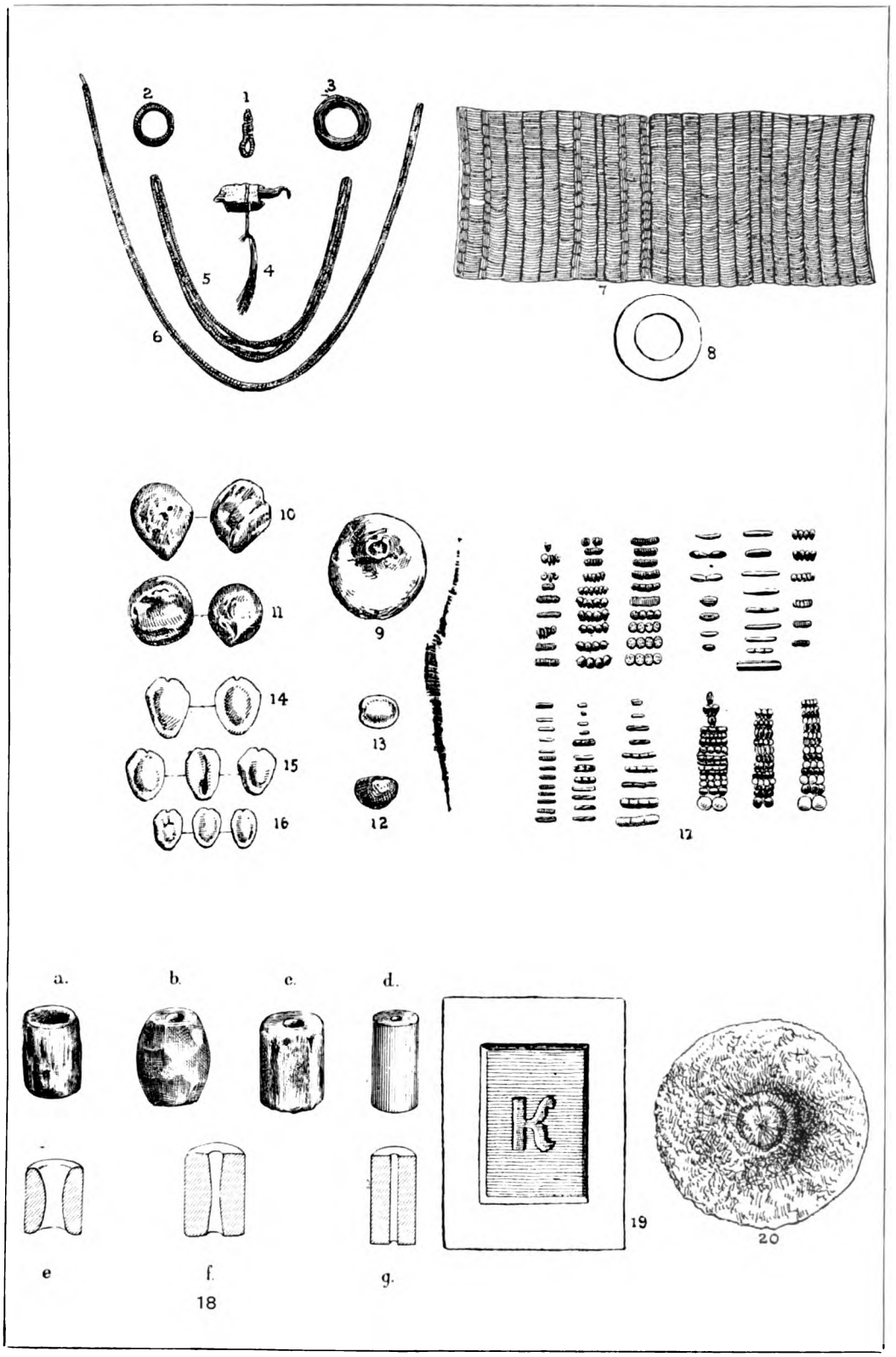


17



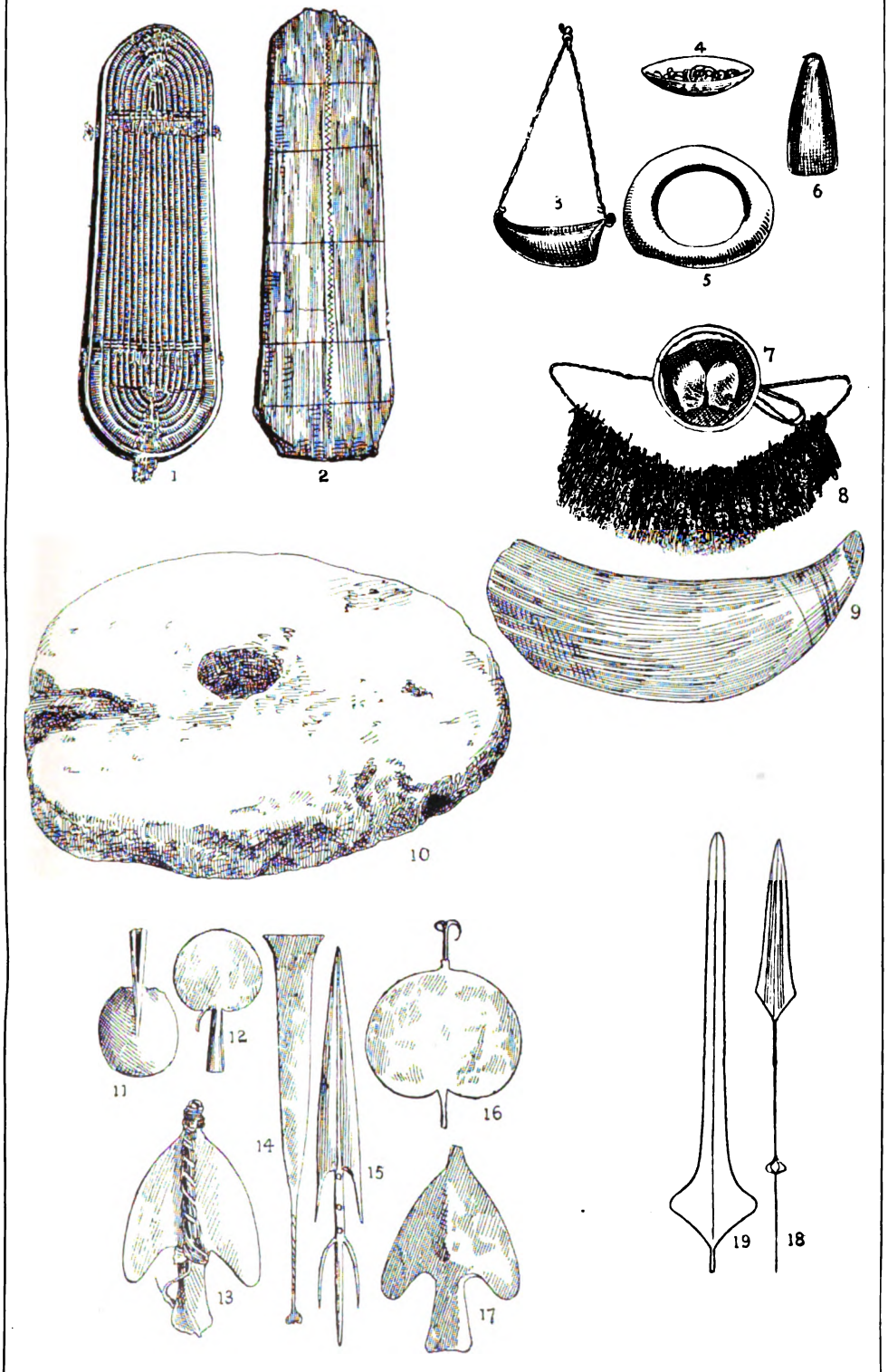
Digitized by Google

Digitized by Google



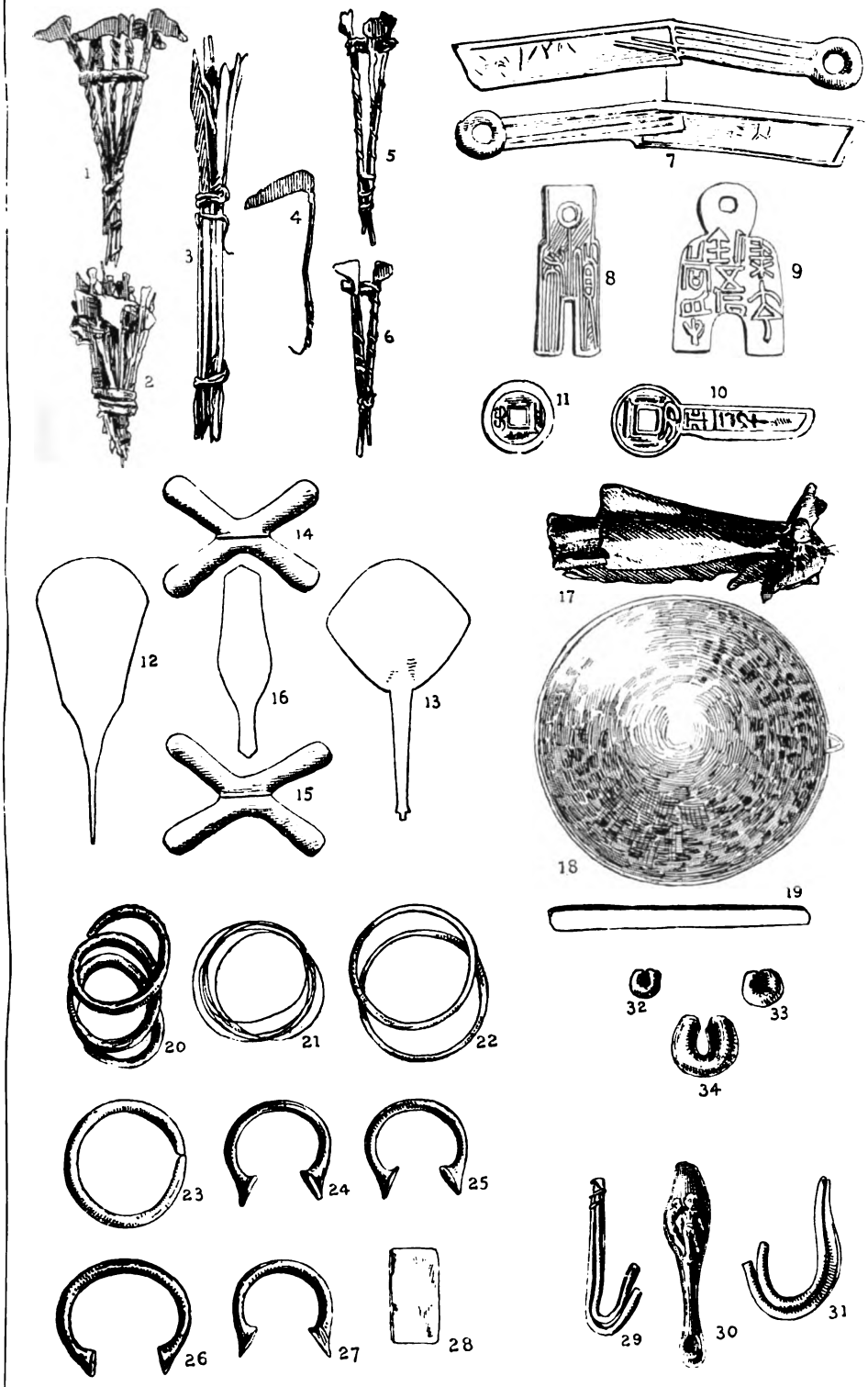
Digitized by Google

Digitized by Google



Digitized by Google

Digitized by Google



Digitized by Google

Digitized by Google

Figs. 29 to 34 are silver money. Figs. 29 and 31 are *larins* from Persia used all over the West Coast of India, the Maldives, etc., for the last four centuries at any rate. They consist of silver wire, bent double and stamped to show fineness.

Fig. 30 is the silver fish-hook money of Ceylon similarly bent and stamped: probably grew out of the *larin*.

Figs. 32, 33 and 34 are silver *ticals* and their parts from Siam. The *tical* is a bar of silver, bent double by hammering and stamped to show fineness.

DESCRIPTION OF THE EXHIBITS.

Mr. M. L. Levin's private collection of Aggry and other (chiefly glass) beads was shown, fastened into six frames. The collection consists of specimens of beads of various kinds that have passed through the hands of the firm during the nineteenth century.

Besides Aggry beads it contains:—A series of beads meant for ornament and not for money for the East Indian trade. Bright shiny beads which are used in Africa as presents and not as money, and are known as "dashes"; they can however be used in barter and in some districts as currency. Miscellaneous beads; Japanese, French, Chinese, African, Australian (peach stones).

Among the African beads are some shell discs and cornelian beads used in Africa, but not made there, as the Africans cannot bore cornelian: they are probably Asiatic procured in trade. One of these is ancient. Similar beads of stone are still commonly found at ancient Buddhist sites in Northern India. Other ancient African beads were also shown.

The collection further contains money-beads which are not Aggries, *e.g.*, Kaffir money, which consists of small common glass beads in shapes peculiar to each district. With reference to the importance of form in money-beads, I may say that there were, up to the outbreak of the Transvaal War, still lying useless 2,000 lbs. weight of beads, at Johannesburg, sent there as Kaffir money; useless because they were of the wrong sort. Also in the collection are some beads which Messrs. Levin attempted to export as general, but not accurate, copies of old Aggry beads for use as money; quite unsuccessfully, however, as no variation in recognised form was acceptable to the natives as money. Blue Popo beads used for money and exceedingly valuable, being worth more than their weight in gold on the West Coast of Africa. The Venetian bead-makers at Murano, as the ultimate successors or the Phœnician and Egyptian makers, are unable to imitate these apparently simple bits of blue glass so successfully as to induce the natives to accept their products as Popo beads. Coral money-beads used on the same West Coast, equally valuable when large as the Popo beads, and worth more than their weight in gold, *i.e.*, more than £4 the ounce.

In this connection there is a very interesting example in Mr. Levin's collection of an old red bead found in some quantities on the beach of St. Agnes in the Scilly Isles, presumably out of some wreck. These turned out to be trade beads intended for the West African trade as money, and were made in Venice. (*Notes and Queries*, 1873, p. 522.)

Digitized by Google

There are in the British Museum and Oxford Museum several cards of samples of Messrs. Levin's exportations of modern Venetian beads to Africa, both as "dashes" and as money.

The following passage from Mr. Hore's account of the twelve tribes of Tanganyika in *Journal Anthropological Institute*, xii, 1882, p. 8, is worth recording here, both for its mention of the use of glass beads for money, and for its valuable reference to the manufacture of salt for currency, as an addition to the notes already made on the subject in the body of the lecture.

"The only export of great extent from Ujiji itself is the famous packages of salt, current all over the Lake shores as a medium of barter. This salt is manufactured once a year on the banks of the Ruguvu River, east of Ujiji, where from 2,000 to 3,000 persons sometimes assemble at the proper season, just before the commencement of the rain, forming quite a town for the sole purpose of manufacturing the salt. It is packed up in cylindrical leaf packages weighing from 20 to 30 lbs. each, and value at Ujiji at about 2 yards of good calico. The market of Ujiji town consists generally of an assemblage of from 200 to 300 small booths or stalls, exposing for sale almost everything that the Lake Countries produce, as well as meat, vegetables, fruit and grain. Here for the first time we find a regular currency or money in use by the natives; it consists of strings of blue and white cylindrical beads, each string containing 20 beads. Bunches of 10 strings are called *fundo*. From 9 to 11 *fundo* are given in exchange for 4 yards of thin Manchester calico, and from 12 to 15 *fundo* for 4 yards of good heavy American calico; the value varying daily according to the quantity of cloth in the market. . . . . Coloured cloths with nails and coils of copper and brass wire, are used for more extensive purchases."

In regard to Aggry beads. The exhibits consisted of samples from Mr. M. L. Levin's collection and of modern Venetian Aggries made for the existing trade in Africa and belonging to myself. All these modern beads were manufactured for Messrs. Levin at different times for the above trade.

In the Levin collection are many samples of Aggry beads, both of their own modern exportation and of genuine ancient make. Of the genuine ancient beads there are several white and speckled samples. The true Aggry bead, old or new, must be of glass, or of a substance closely resembling glass, of the same quality throughout, and in the Levin collection are two samples of Aggries cut by suspicious natives to test their quality. In both cases the outer surface was all blue, but the inner surface, and of course the ends also, had a wavy white pattern running over them. The regular continuance of this pattern throughout the inner substance of the beads was what the cutters were looking for.

The place know as Agra, in trade parlance Aggry or Aggrey, is, I am told, not the modern Accrà. It is rather an old ruined site of a former town not far inland from the West Coast of Africa, near Cape Coast Castle. It has given its name to the famous Aggry beads probably because it was once an important trading centre. The origin of the peculiar forms known as Aggry beads is somewhat thus. The

Digitized by Google

Portuguese and Spaniards succeeded, as traders on the West Coast, the Arabs who worked for Egyptian masters. The Arabs' trade was very ancient and their currency the old glass beads. The more modern Arabs first and the Europeans afterwards found that their best policy was to continue the recognised form of currency by imitating it. The modern Aggry beads are made in Venice. Ancient Aggries are very rare.

There does not appear to be much scientific information on this subject. Indeed, I am only aware of the obviously cursory paper on "Aggri beads" by Mr. J. E. Price, *Journal Anthropological Institute*, xii, 1882, p. 64, and the avowedly inconclusive notice in Brent's "Glass Beads with a Chevron Pattern," *Archæologia*, vol. xlv. But what literary evidence I have confirms the above statement, and so does an examination I was able to make, owing to the courtesy of Mr. A. J. Evans, of the splendid collection of beads in the Ashmolean Museum. This examination enables me to say with some confidence that in form, substance and manufacture all Aggries, ancient and modern, are the direct descendants of those ancient Egyptian beads which Mr. Evans tells me belong to the seventeenth and nineteenth Dynasties, especially the latter, and are characteristic of the Ramesside period. The date of these beads from the ancient Egyptian tombs may range therefore from about 1400 to 1100 B.C. As a step, perhaps, in the pedigree, Professor Ridgeway informs me that long cylindrical beads of beryl and aquamarine are found in prehistoric tombs in Rhodes, which seem to have come from mines at Zabara in Egypt. The form and shape, and perhaps substance, of these suggest the Popo beads of West Africa, which may almost be taken as a form of Aggry beads, and have precisely the same ancient history.

DISCUSSION.

Professor RIDGEWAY expressed his warm admiration for the valuable series of facts which Colonel Temple had laid before the meeting. Personally he felt gratified to find that Colonel Temple had collected so many fresh cases which supported the views that he (the speaker) had put forward in his *Origin of Metallic Currency and Weight Standards*, such, for instance, as the doctrine of conventional price, which was admirably illustrated by the case mentioned by Colonel Temple, where the price of chickens had got fixed at a rupee, because a rupee was rashly given for the first chicken bought from the natives of a certain district. He could not agree with the distinction between *currency* and *money* drawn by Colonel Temple, as he considered that it was impossible to draw a hard and fast line between them.

Colonel Temple had spoken of certain objects as having been made solely for the purpose of being used as media of exchange, such as the feather money of Santa Cruz, and the mill-stone money of the Caroline Islands. This seemed a return to the old idea that people had sat down and agreed that such and such an object should be their money without any reference to its utility. On this point he would break a lance with Colonel Temple, for he thought that we had abundant means of arguing from the known to the unknown in questions of primitive currency,

Digitized by Google

and as in all cases where there were records it was invariably discovered that the object used as a medium of exchange had originally been an object employed in daily life for some purpose or another, it was reasonable to infer that in cases such as the feather money of Santa Cruz these objects had been formerly used as ornaments of value, just as the other specimen of feather money shown by Colonel Temple on the next slide is still worn as an ornament, and just as the feathers of the royal bird of Hawaii were used both as money and ornament. He would call their attention to some objects which within a short period had passed out of use in daily life, but had remained in use as money. Every one knew that up to a few years ago stone axes were used for all purposes of daily life in New Guinea, and were one of the chief articles used in purchasing wives, etc. At the present time the iron axes brought by traders had made the stone axe obsolete for practical purposes, but they still retain their monetary value and continue to be used in the purchase of wives. Again, on the north-west coast of North America the most valuable medium of exchange was the "copper," which was worth 500 skins (beaver). He (the speaker) had not been able to give its early history in his *Metallic Currency*, but could only quote from the Canadian Government report, which said that it was a conventional money unit, but he had ventured to suggest that the "copper" was some kind of gong, as the Indians attached great importance to its sound when struck, and gongs, such as those shown on the screen, are used as money among some peoples. However, his suggestion was wrong, for he now knew that these "coppers," an example of which he exhibited, were made out of the native copper in the Chilcat country north of Sitka, and were shields. The large ones had the totem in the centre. These were of great value to a warrior as defensive armour, and hence the large price which they fetched all down the coast as far as Queen Charlotte Island. With cases like these before them, he thought it was dangerous to say that the mill-stones of Caroline Islands had never had any practical use, but had been first made for the purpose of serving as money. He desired once more to express his heartiest thanks to Colonel Temple, whose kindness he had personally experienced in the past, for his most valuable lecture.

Colonel TEMPLE said that he found himself practically only called upon to reply to the remarks of Professor Ridgeway. He did not think that there was any real divergence of opinion between himself and the Professor. He had had that evening to confine himself to definitions and beginnings and their illustration, and to leave development out of his purview. Hence the peculiar cast he had had to give his paper. He agreed that it was very difficult to separate money from currency at the points where the two met, and that looked at from the standpoint of development, money in a conventional form usually arose out of currency, and sometimes the development was *vice versâ*. But what he wished to insist on was that in order to adequately treat the question of the origin of money and currency it was necessary to clearly define the technical terms to be used, and this he had endeavoured to do. His illustrations and his method of describing them were intended to throw light on his argument by showing what was used as money and what as currency without reference to development.

Colonel Temple said he felt grateful for the attention accorded to his long lecture, and for the courtesy with which his propositions had been discussed by Professor Ridgeway and the other speakers.

Digitized by Google

ORDINARY MEETING.

JUNE 13TH, 1899.

C. H. READ, Esq., F.S.A., *President, in the Chair.*

The Minutes of the last Meeting were read and passed.

List of books presented to the Institute since last Meeting were read, and thanks passed to donors.

The PRESIDENT then introduced Mr. GEORGE CLINCH, who proceeded to read his paper on "Prehistoric Man in the Neighbourhood of the Kent and Surrey Border; Neolithic Age." This was well illustrated by a series of lantern slides and numerous specimens of Neolithic Implements, etc.

Discussion was carried on by Mr. ALLEN BROWN, Mr. A. L. LEWIS, Mr. WM. GOWLAND, and the PRESIDENT. Mr. CLINCH replied to the questions asked, and expressed his obligation to Professor Rupert Jones for kindly help in the preparation of his paper.

The PRESIDENT passed a vote of thanks to Mr. Clinch for a very able paper that showed both ingenuity and thought. He then asked Professor Rupert Jones to make a few remarks about a small collection of prehistoric implements presented to the Institute by Mr. Fred Swynnerton of Simla, and Professor RUPERT JONES stated that he had looked over the collection, all of which had been found at Gwalior. It contained specimens of Eoliths, mostly quartzite, and some fairly worked implements. The short paper of Mr. Swynnerton was a good account of them.

A vote of thanks was passed to Mr. Swynnerton for his paper, and the collection, and also to Professor Rupert Jones for his remarks on them.

Digitized by Google

PREHISTORIC MAN IN THE NEIGHBOURHOOD OF THE KENT AND SURREY BORDER: NEOLITHIC AGE.

By George Clinch, F.G.S.

[with plates xxii and xxiii.]

During the past twenty years numerous discoveries illustrative of prehistoric man have been made in the district roughly indicated by the title of this paper. The area to which the paper particularly refers is about four miles in diameter, and is pretty evenly divided by the boundary line between Kent and Surrey, the central point being the fir-crowned heights of Shirley, near Addington.

Upon the present occasion it is proposed to deal only with those remains which belong to the Neolithic Age, recent discoveries having made it possible to form a pretty complete idea of the occupations and other phases of life in the district during that period.

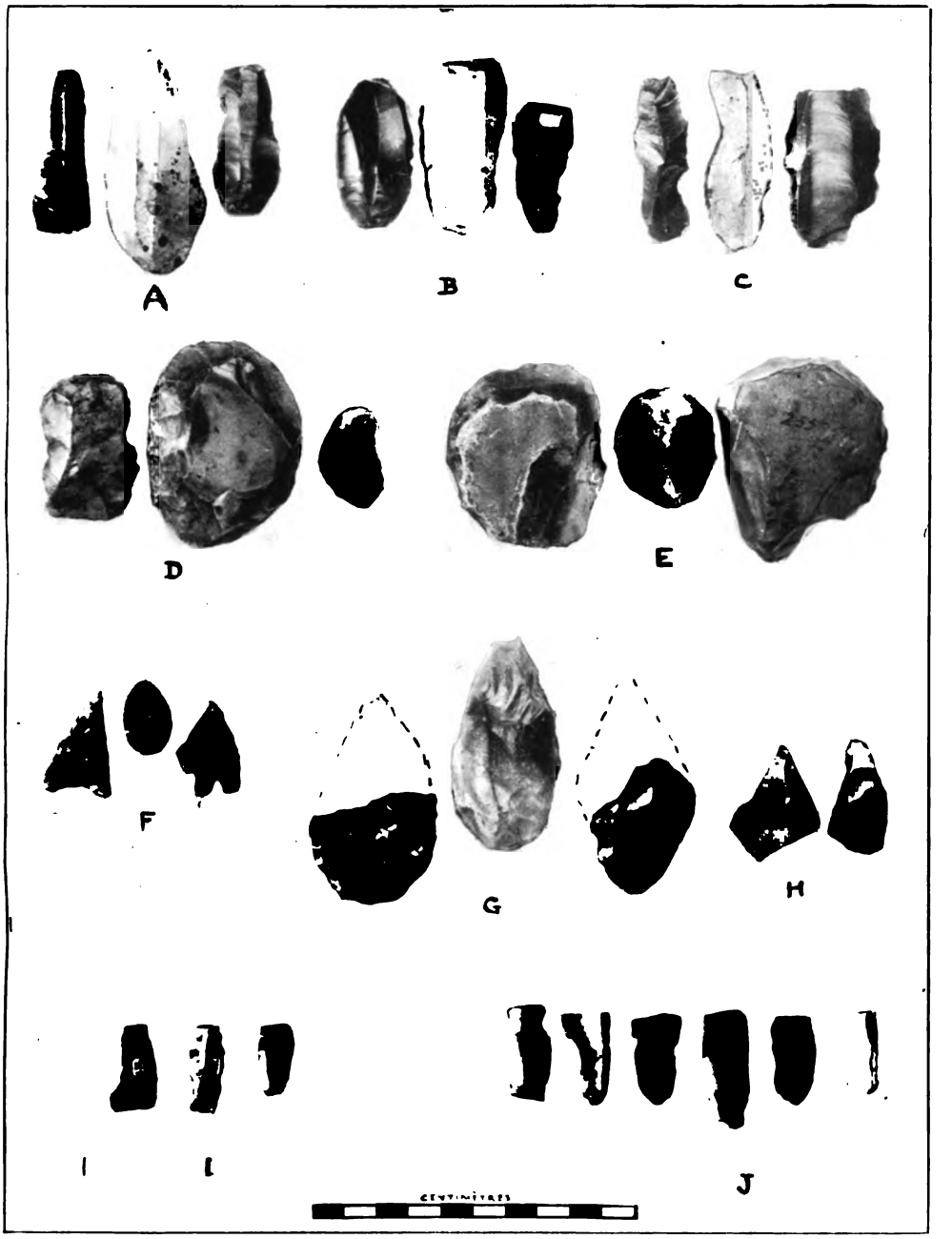
In the first place, it may be convenient to review, in a brief and general way, the more important of the discoveries which have rewarded the researches of the writer at various times. Particulars of some of them, in detail, have been published already, but it is necessary to bear in mind the drift and tendency of previously established facts before we can be in a position to appreciate the force and meaning of those which have been brought to light recently.

In the year 1878, and during three or four years subsequently, I found at West Wickham, Kent, a series of groups of flint implements of a character and under circumstances which suggested that they marked the sites of Neolithic dwellings. The field in which they were first found, called Moll Costen, had only for a few years been under cultivation, so, although the hut-floors had been disturbed before I had an opportunity of inspecting them, their contents had not been widely distributed, and the implements, in many cases, were pretty perfect, in strong contrast with the specimens found in the adjoining fields which had long been subjected to the operations of husbandry.

That the place was the site of a Neolithic village, rather than a mere manufactory, is clearly indicated by the domestic character of the implements, and also by the fact that several examples bear marks of having been worn down by use.

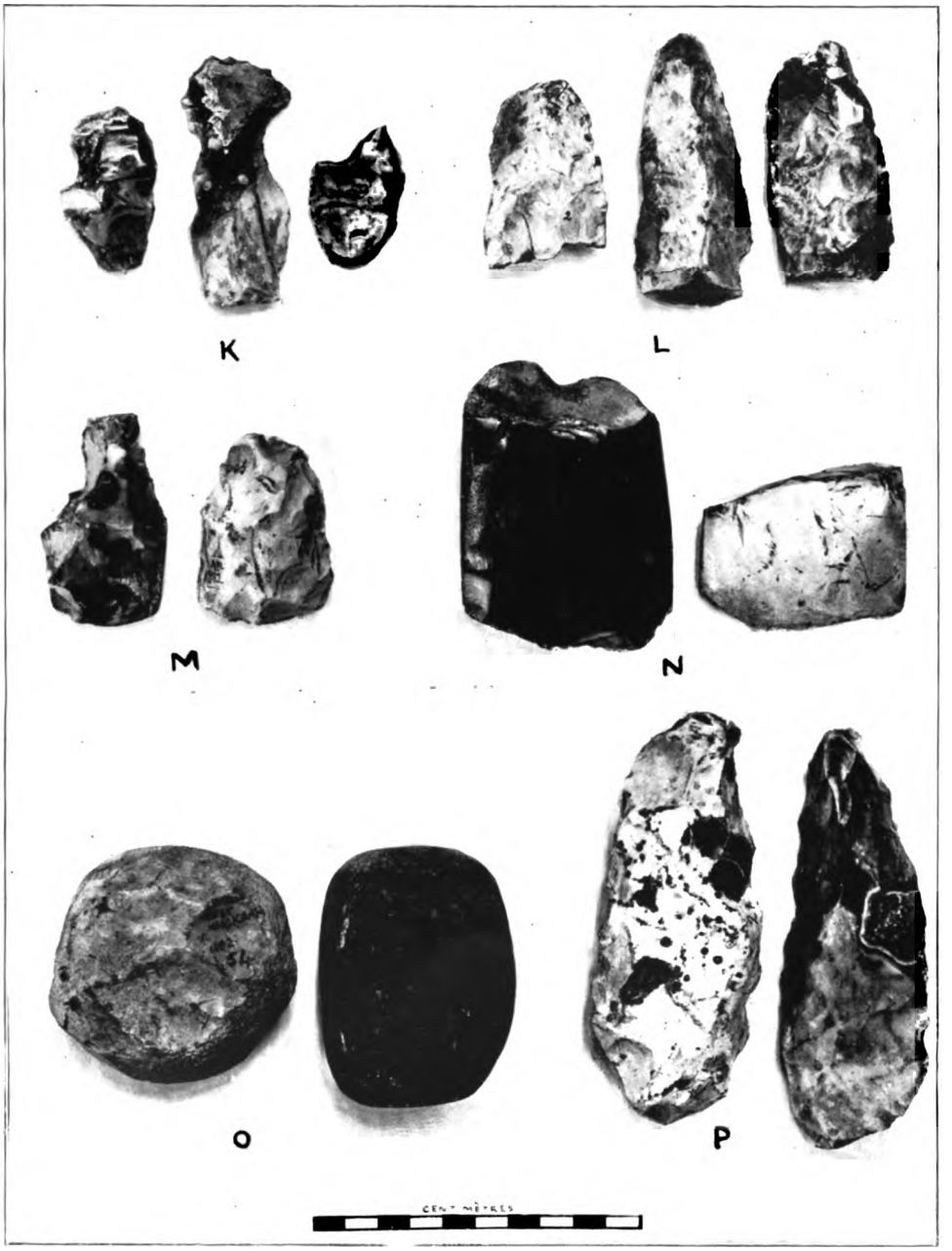
In several of the neighbouring fields in the same parish I was able to identify the sites, either separately or in groups, of human dwellings during the Neolithic Age. All these sites I have examined carefully and frequently, with the result that I have collected from them several hundreds of implements, flakes, chips, cores, and weapons.

Digitized by Google



Digitized by Google

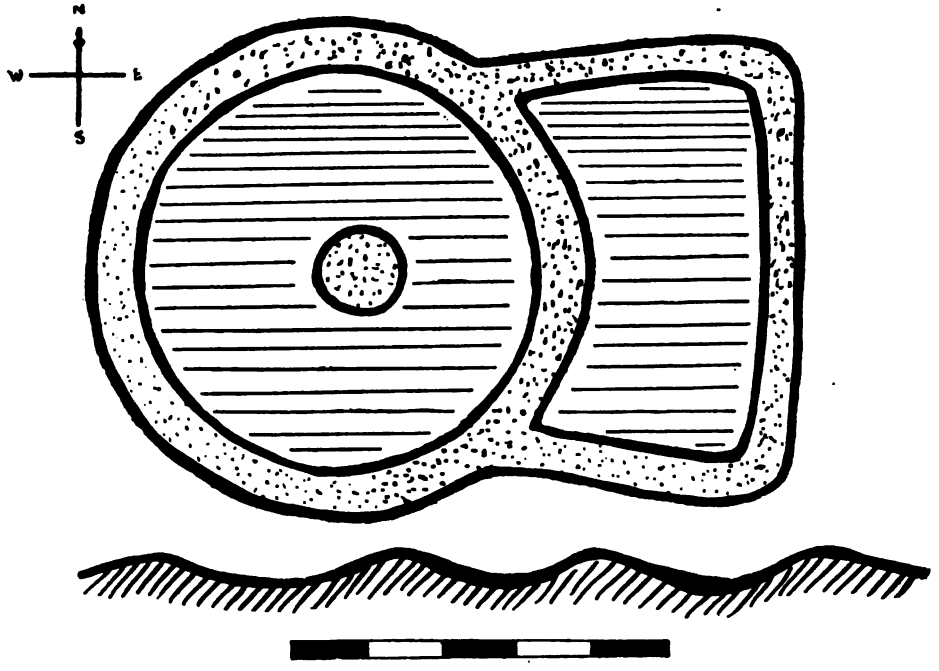
Digitized by Google



Digitized by Google

Digitized by Google

My aim, however, was to find on some uncultivated site an undisturbed hut-floor belonging to this class, and by excavation and examination of its contents to determine, as far as might be possible, the method of construction of the dwelling and anything that was not already known about its occupants. After searching in the woods and other promising places, I found a good specimen of a pit-dwelling 6 metres in diameter in Fuller's Wood, situated near Moll Costen. This example, however, was so much overgrown by trees that it was not possible to excavate it with any prospect of a satisfactory result.



Scale of metres.

FIG. 1.—PLAN AND SECTION OF HUT-CIRCLE, HAYES COMMON, KENT.

On Hayes Common I found a large number of circular depressions which appeared to have been once the floors of huts. In the year 1878 I cut a trench through one specimen with a view of determining its origin, but beyond the fact that the ground had been disturbed to a depth of about 50 cm., my search was unsuccessful. Below that the gravel was hard and compact and had evidently never been moved. In the following year I opened other pits with equally indefinite results, no pottery, implements, or other sign of occupation being found. In one small pit, 1·25 m. in diameter, however, there were distinct indications of an ancient fire at a depth of 40 cm. from the surface of the ground. These indications consisted of roughly cubical fragments of charcoal, powdered charcoal, and a number of pebbles thoroughly reddened by severe heat.

Digitized by Google

During the following seven years further pits were excavated, but still no traces of habitation, except occasional marks of fire action, were found.

In 1886, I opened a pit of entirely different type, consisting of a large depression, nearly circular in form and 6 m. in diameter, with a conical mound in the centre, and a roughly quadrangular pit attached to it on its eastern side. In the centre of the circular pit, immediately below the central mound, I found, at a depth of 60 cm., about thirty unusually large pebbles evidently collected in this place for some definite purpose, possibly as a hearth for the fire or as a foundation to support a central pillar upon which the roof might be carried. I formed the opinion then, and I have had no reason to alter it since, that these

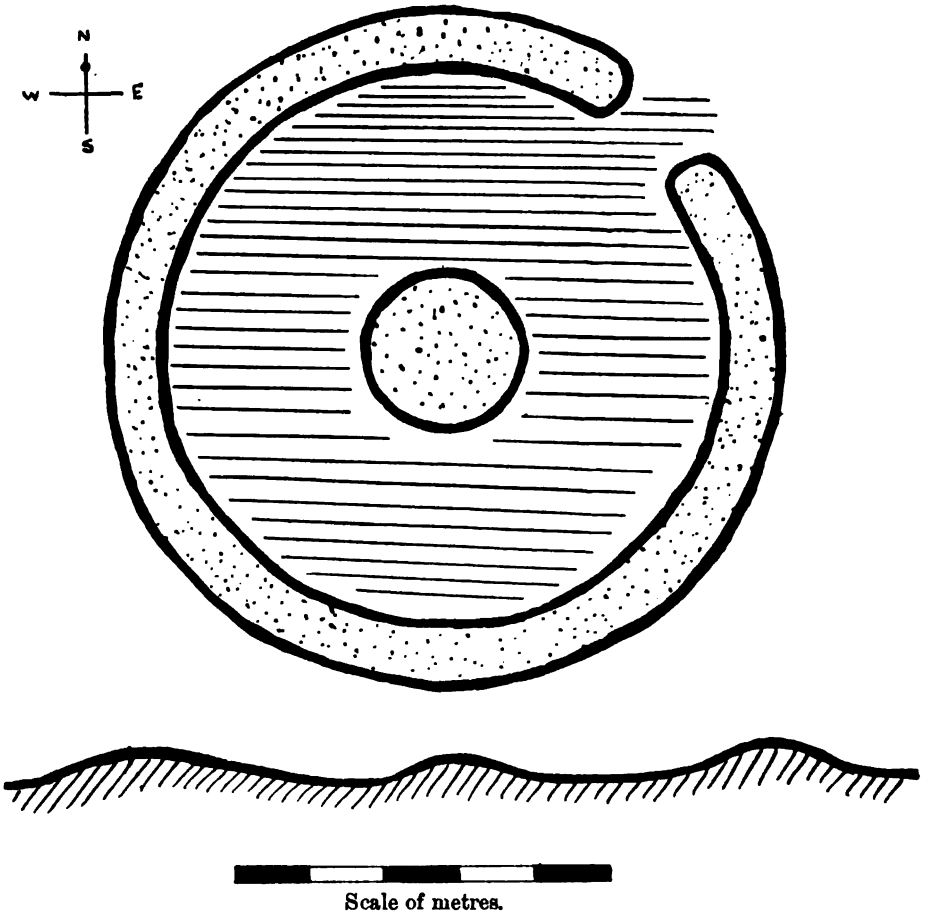


FIG. 2.—PLAN AND SECTION OF HUT-CIRCLE, HAYES COMMON, KENT.

depressions represented the floor, and the enclosing mounds represented the low walls or foundations of walls of a dwelling consisting of two apartments. In the accompanying diagram (Fig. 1) of this interesting hut-floor the straight lines represent depressions below the natural surface of the ground, and the dotted spaces indicate embankments above it.

A diagram of the ordinary type of hut-circle is shown in Fig. 2.

Digitized by Google

During the year 1886, and subsequently, I opened further pits, and after a careful examination of every example, about 150 in number, I came to the conclusion that they might be divided conveniently and reasonably into three types, viz.:—

1. Large circular pits from 3 m. to 10 m. in diameter, and from 15 cm. to 90 m. deep, surrounded by a well-defined and carefully constructed mound, in which, at one point, there was a flat space, probably representing the entrance to the hut. These pits did not show evidence of fire.
2. Large circular pits, similar in every way to those of the first type, but with a low conical mound in the centre. (See Fig. 2.)
3. Small circular pits, very even and uniform in construction, from 1·25 m. to 3 m. in diameter, without marks of entrance, and generally without an encircling mound, but always containing at a depth of about 35 cm., reddened pebbles, charred wood, and other marks of fire.

Pits of the last type would in most cases be too small for dwellings, and the question occurs whether they might not have been the sites of fires for cooking. This explanation will be dealt with later on.

There were several well-defined lines of ditch-and-mound work on Hayes Common, which appeared to have some relation to the hut-circles, but none to the existing roads across the Common. In fact, the modern roads, in some places, cut through the lines of ditches and mounds.

Extending my researches to other tracts of uncultivated land, I noticed pits similar in many respects to these at Shirley Common, and at Croham Hurst, both in Surrey. All were associated with chips, flakes, and cores of flint, apparently of Neolithic Age, but beyond this there was little positive evidence as to the period to which the dwellings, if such they were, might be assigned.

During many years the approximate age of the Hayes Common pit-dwellings remained a somewhat doubtful question, for although various circumstances pointed to their great antiquity, no sufficient evidence upon the point was forthcoming. In the year 1897, however, some building operations at Millfield, Keston, adjoining Hayes Common, led to the discovery of a pit which had unquestionably been the floor of a Neolithic workshop. Here were discovered upwards of nine hundred fragments of flint, including cores, flakes, and waste chips, and from the internal evidence, which has been set forth in detail in a paper communicated to the Society of Antiquaries of London by Mr. Philip Norman, F.S.A., the question has been settled once for all. Further particulars of this important discovery will be found in a subsequent part of this paper.

The district under consideration in the present paper does not contain rocks which would afford shelters of the kind utilised by prehistoric man in certain localities, but the necessity of some shelter during severe weather must have been felt by the inhabitants of the place during Neolithic times. It seemed worth

Digitized by Google

while, therefore, to search for traces of ancient dwellings under the shelter of such precipitous slopes as were to be found with a southern or south-western aspect. Croham Hurst, a remarkably fine tract of forest land situated about one mile south of Croydon, offered precisely those conditions of shelter from the cold winds and snow-storms of winter which would have been sought for as dwelling-places by Neolithic men and women, and to it accordingly I turned my attention.

The upper part of the hill consists of a bed of the well-rounded pebbles and sand so abundant at Shirley Common, Hayes Common, and many others places. It is in fact an outlier of the well known Oldhaven Beds. On the south side the slope of the hill averages 30 degrees. It may be explained that this steep slope is largely preserved by the vegetation consisting of heath, moss, grass, and a number of stunted oak-trees growing in abundance on the top and sides of the hill.

What happens when this vegetation is destroyed is well shown in some of the worn footpaths where the grass has been killed and the pebble beds have been disintegrated and worn down by the rain-wash in consequence.

To some extent the steep angle of the hill may be preserved by masses of ferruginous conglomerate, one large mass of which is exposed for a distance of 9 m. on the surface of the hill near the point where most of the implements have been found.

I mention these points because it is of some importance to understand the conditions which may have made it possible for an ancient excavation on the side of the hill to have been preserved to our own day. Taking all things into consideration there does not appear to be any good reason why the excavations I am about to describe should not have remained intact from Neolithic times. As far as we know the hill has been wooded from a very early period; there is practically no rain-wash on certain parts of it; and there are no disturbing forces which might cause a subsidence, or any other considerable alteration of the surface. The rolling down of a certain amount of loose matter and the accumulation of peat and decayed leaves would in the ordinary course take place, and recent excavations of the contents of the shallow pits has proved that this has happened.

The excavated sites at Croham Hurst, which I am inclined to think were occupied as dwellings in Neolithic times, are of two kinds, viz., (1) Large, circular or nearly circular, depressions in the surface from 8 m. to 17 m. in diameter and from 60 cm. to 1·6 m. deep. These are situated upon or near the crest of the hill. (2) Depressions similar to the above, but shallower and smaller, and often occurring in pairs about half-way down the steep slope of the hill.

Plentifully scattered around these pits are numerous flakes, chips, and cores of flint, but the thick covering of dead leaves and other vegetable matter makes it extremely difficult to examine the surface of the ground.

During a number of examinations of the surface I have found upwards of a hundred fragments of flint, each of which has been chipped with a definite aim, but in nearly every case, they are such as would be struck off the nodules of flint

Digitized by Google

preparatory to or in the process of making implements and flakes. Few perfectly finished flakes have been found by me, but enough to show that well-made implements have been manufactured here, and these, it is almost certain, may yet be found, if searched for, among the material which has rolled down the steep side of the hill.

In March, 1899, by the kind permission of the Governors of the Whitgift Foundation, four of these circular depressions were opened with results which, although they must be described as generally neutral, did not in any way militate against the theory of their Neolithic age.

In one large pit situated near the top of the hill and measuring 17·5 m. east and west by 15 m. north and south, and 1·6 m. deep, I dug some experimental holes from which it appeared that there was a layer of compact peat 30 cm. in thickness, under which pebble-beds were disclosed.

The earth which had been removed from this depression had apparently been deposited as an encircling mound around it, but this mound had become much flattened by weathering and other causes. The deposit of peat, 30 cm. thick, indicates considerable antiquity, as this kind of peat is not formed quickly, and the pit was not situated in a specially good position to receive or retain any large amount of vegetable matter.

Excavations in the depressions on the hill-side tended to show that there had been a certain amount of material brought down from the hill above by various causes. This is not remarkable when the steep southern slope of Croham Hurst is remembered. Nevertheless, the digging revealed a deposit of peat, 20 cm. thick in the bottom of the pits under the material brought down.

As far as I have been able to investigate the matter at present the chief evidence of the Neolithic age of these pits is to be found in the flint flakes, chips, and cores which are associated with them, and when it is remembered that no flints suitable for the purpose of making implements occur naturally on Croham Hurst, their occurrence here has greater significance than would otherwise be the case. This significance is increased by the fact that nearly every fragment of chalk-flint found on Croham Hurst has been worked, and bears an ancient and smooth surface. Further we may note that the adjacent ploughed fields (on the surface of which flints occur naturally) are thickly strewn with flakes, and other evidences of Neolithic work.[1]

Thus, although the hut-floors, like those at Hayes Common, have retained scarcely any other indication of their purpose and great age except their general form, their encircling mound, and their thick deposit of peat, the associated flakes and chips of flint seem to prove pretty conclusively that Croham Hurst was occupied by man during Neolithic times, and the form of the depressions affords a strong presumption that they were the floors of the huts in which he dwelt.

[1] The worked flints here referred to are those found by Mr. Whitaker, F.R.S., and myself. I am unable to accept as genuine many so-called implements found in these fields by certain other observers.

Digitized by Google

Throughout the district the principal evidence of Neolithic times is to be found, as might be expected, in the flint implements, tools, and weapons, rather than in those objects composed of more perishable materials which must have been largely used by man. Articles made of horn, bone, and other parts of animals have, of course, entirely disappeared by the ordinary processes of decay, but some of the flint implements which were specially shaped to be fitted into bone handles have been discovered.

Before proceeding to consider the implements in detail it may be remarked that generally speaking those found at West Wickham are characterised by very skilful workmanship, which shows that the art of flint-chipping and flint-grinding had reached a high state of excellence.

The sharp-edged ground stone axe, which has been described by one eminent writer[1] on the subject as the symbol of Neolithic culture, is represented among the West Wickham implements by fragments rather than perfect specimens. My collection contains only seven examples of ground implements altogether, and of these only three are more or less fragmentary portions of regular celts or axes of any importance, the remainder having been reworked or broken to such an extent that it is not possible to say what was their original size and shape.

But I am not inclined to infer from the scarcity of this particular form of work that civilisation was at a low ebb, or the art of implement making not thoroughly understood by the people of the period and in the neighbourhood to which these remarks refer. It should be remembered that the process of grinding down a flint to a smooth surface and a sharp edge is at the best and with modern appliances a tedious and lengthy operation, even when the general shape has been roughed out by chipping. Moreover, flint was abundant and, in the hands of a skilful workman, easily and readily shaped by chipping, and it is not reasonable to suppose that any people, savage or civilised, would purposely make their implements and weapons by a slow and exceedingly laborious process when the means of producing them by a simpler, more expeditious, and equally advantageous method, were within their reach.

I am inclined rather to attribute the scarcity of ground implements to the abundance of raw material of which chipped implements could be easily manufactured, and also partly, to the absence of a suitable gritty stone in this neighbourhood upon which ground implements could be rubbed down.

Celts entirely shaped by skilful chipping are not common. I have found three fragments of such weapons, one being the pointed half and remarkable for its particularly fine workmanship. (Plate XXIII, L.)

Closely allied in form with these chipped celts are certain roughly shaped implements about 12·5 cm. in length, 4 cm. broad, 3 cm. thick, and weighing about ·5 kilos. In the boldness of the workmanship we seem to have almost a survival of palæolithic methods, except that the results attained are

[1] Professor W. Boyd Dawkins—*Early Man in Britain*, 1880 edition, p. 274.

Digitized by Google

poorer, considered with reference to the efforts expended, than in the older implements. (Plate XXIII, P.)

It seems probable that these implements may have been intended for use as hoes, or other analogous agricultural tools, for scarifying or breaking up the surface of the ground. In order to test how they would do for such a purpose I have mounted one in a rough handle with a result which is not, perhaps, entirely unsatisfactory.

The rarity of elaborate and highly finished arrow-heads south of the River Thames is well known, and it is not surprising, therefore, that only three specimens which entirely answer to this description have been found at West Wickham. The scarcity of these objects may be explained perhaps by the theory that simpler forms of pointed flint have served as arrow-points.

Of the three elaborately worked arrow-heads found at West Wickham, there is an highly-finished example which may perhaps be compared with the best work of Neolithic times. Its form is that known as leaf-shaped, but it is rather thicker and rounder than arrow-heads of this class often are. (Plate XXII, F.)

Its length is 2·4 cm.; its breadth 1·5 cm.; and its thickness 1·2 cm.

Another example, which originally possessed two barbs and a tang, has unfortunately lost one of the barbs, but otherwise it is in good condition and its point and edges are still quite sharp. Its length is 3·2 cm.; breadth 2·2 cm.; thickness ·5 cm.

The third example belongs to a class that is rare in England, but more common in Ireland. It possesses a concave, tangless base, a rather tapering point, and a somewhat one-sided appearance. Its length is 3·5 cm.; breadth 2·2 cm.; and thickness ·5 cm.

It seems unlikely that these highly-finished arrow-heads, made with so much care and skill, were used for ordinary purposes. It is probable that they were produced for some special use. Arrows intended for ordinary use may have been pointed with the sharp, tapering ends of flakes, the butt ends of which were found in such abundance on the hut-floor at Millfield, already mentioned and presently to be dealt with in detail.

Many of those flakes had been broken with an oblique base, so that when the point was mounted on the arrow one angle would form a barb.

The number of pointed weapons which may have served as spear heads is rather larger than that of arrow-heads, and generally speaking their workmanship must be pronounced decidedly inferior. This may be explained by the fact that exactness in reference to poise and true balance was not so necessary in the case of a weapon held and directed by the hand as in that of a missile, such as an arrow, which was intended to be projected through the air. Accordingly, we find a comparatively large number of trimmed flakes which, although somewhat curved in longitudinal section, have probably been used for the purpose of spear-points.

It has been suggested that some of these implements which I have classed as spear-heads may have served as knives.

Digitized by Google

The implements known by the general name of scrapers, comprise such a large number of forms, sizes, and methods of manufacture, and were undoubtedly applied to so many different purposes, that it seems desirable to pay special attention to them. We have in them the Neolithic equivalent of the modern pocket-knife and the contents of a nineteenth century tool-chest—the implements, in short, with which all kinds of articles formed of wood, bone, horn, and possibly soft stone, were carved and scraped into the desired shapes. It is, therefore, a matter of considerable importance to observe the shapes of the cutting edges, the character of the marks of wear upon them, and the great variety in their strength, and size, and methods of manufacture. In size, the scrapers vary from a diameter of slightly more than 1·2 cm. to upwards of 5 cm. Although the shape is usually more or less circular, it is sometimes elongated, and sometimes flattened. There is usually a tendency more or less pronounced, towards a tang. This is developed much more in some cases than in others but it exists in all. (Plate XXII, D.)

These remarks apply mainly to what may be called the regular forms of scrapers. In addition to these there is a large number of less-perfectly shaped forms. Upwards of fifty examples of this kind were found at West Wickham. Generally speaking they may be described as rougher in style, thicker in section, and less freed from the rough, original coating of the flint, than the more regular scrapers. Yet when they are submitted to careful examination it is clear that they have been put to such a multiplicity of uses that they may be considered to be among the most interesting of the implements of the Neolithic period found in the neighbourhood of the Kent and Surrey border. (Plate XXII, E.)

In a few instances the amount of wear to which the edges of scrapers have been subjected has been so great as to produce a series of facets. The surfaces of some of the worn edges seem to have been scratched in such a way as might, perhaps, be produced by friction with sand. Other examples of wear show a considerable removal of the edge, produced apparently by a series of slight blows.

The explanation formerly given by some authorities that scrapers were used especially if not solely for the dressing of hides is not borne out by the evidence of the implements found at West Wickham. This evidence points to a much wider range of uses.

Among the class of implements known as flakes, there are some specimens of remarkable excellence of workmanship. In some the flint has been shaped with a cleanness and precision which reminds one of the fracture of obsidian rather than of flint. (Plate XXII, A.) There is one very fine example, 5 cm. in length and triangular in section, the edges of which have been minutely serrated. It was doubtless used as a saw for some delicate work The main part of the implements found at West Wickham, and indeed throughout the district, consists of flakes. Many of these have been carefully chipped to a point to be used as drills (Plate XXII, H): others have had semicircular indentations made in them and were probably used for shaving and rounding sticks or fragments of bone; possibly for arrow stems or needles, and there are many other forms of wear observable upon them. (Plate XXIII, L.)

Digitized by Google

Hammer-stones are represented by several large masses of tough grey flint varying in weight from ·5 to 1·5 kilos. The surfaces of these hammers exhibit marks of long continued wear, as the stone is in places worn in facets. (Plate XXIII, o.)

I have one very interesting implement which appears to have served as a grain-crusher. It is a small quartzite boulder, possibly a Sarsen stone, each end of which has been considerably flattened by wear. It weighs ·8 kilo. One end is worn nearly flat apparently from contact with a flat surface, whilst the other end exhibits several facets. The difference in the character of the wear on the two ends may be explained perhaps by the theory that the flat end was produced by pounding such as would be necessary to crush grain, while the faceted wear of the other end may have resulted from the irregular rotary motion employed whilst using it as a pestle in a mortar. The latter wear seems to have been caused by the action of reducing the crushed grain to fine flour.

The recent discovery of a floor on which the manufacture of a large number of flint implements had been carried on at Millfield, Keston, is of great value for many reasons, for the light it gives as to the methods adopted by the maker of flint implements; the tools he used in his work; the material he employed; and the specific purpose of the implements he produced. But perhaps its chief importance arises from the fact that it enables us to assign the pit-dwellings on Hayes Common to an approximate period.

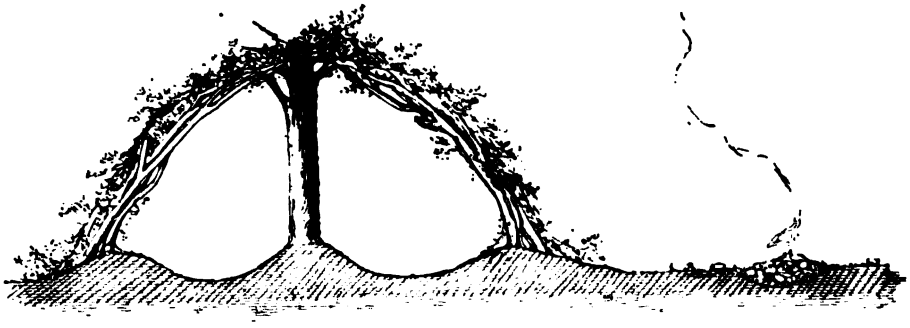
It may be explained that the pit at Millfield, although in the parish of Keston, is quite near the groups of pit-dwellings on Hayes Common, and intimately related to them. Towards the end of the year 1897, numerous flakes and chips of flint were accidentally found by some men engaged in building operations. The fact was communicated to me by Mr. G. W. Smith, and further search was suggested. The result was that within a circular space 5 m. in diameter and from 45 cm. to 70 cm. below the surface, 958 flakes and other fragments of flint were found, consisting of :—

22	cores
461	flakes
475	waste chips
958	

The character of these flints is precisely like that of the specimens which have for many years past been found sparsely but pretty evenly distributed over the surface of Hayes Common, but the flakes, especially those which were straight and well-formed, had in nearly every case been purposely broken, the pointed end of an acute triangular form, having in every such case been carried away, and although the material removed from the pit was screened and carefully examined, not one of these pointed ends was found. It is evident that they must have been severed from the flakes to which they belonged and carried away for some specific purpose, whether to be used as arrow-heads, or for the teeth of sickles, or for what other purpose does not seem clear.

Digitized by Google

It has been shown[1] that the undoubtedly Neolithic pit at Millfield, is in every way identical in character with the pit-dwellings on Hayes Common, except that it has lost its covering of peat. Viewed in the light of this discovery it is a comparatively easy matter to identify several groups of Neolithic dwellings on Hayes Common and numerous lines of ditch-and-mound work which may represent enclosures for the securing of the cattle belonging to the inhabitants of the dwellings. It is not difficult to understand how these dwellings were constructed. Probably an excavation from 5 m. to 10 m. in diameter was first made, circular in form and about 1 m. in greatest depth. The removed earth may then have been carefully arranged as a continuous mound around the pit, and in this mound a number of long branches of trees were probably planted, the ends of which met over the middle of the hut. A roof consisting of a thatch of heath or reeds completed the means of protection from the external elements, whilst the encircling mound would help to throw off superfluous rainfall, and afford some degree of warmth and shelter. A conjectural restoration of such a dwelling is shown in Fig. 3.



Scale of metres.

FIG. 3.—CONJECTURAL RESTORATION OF NEOLITHIC HUT WITH EXTERNAL FIRE, HAYES COMMON, KENT.

In some of the larger huts there was a raised mound in the centre on the sides of which the inhabitants may have reclined when rest was required. Sometimes, however, the mound seems to have been placed in the hut in order to support or steady the lower end of the trunk of a tree upon which the rafters of the roof rested. Owing to the highly inflammable character of the structure it would not have been safe to have a fire within the hut during very dry or windy weather; the cooking fire, therefore, would be made at a short distance from the dwelling.

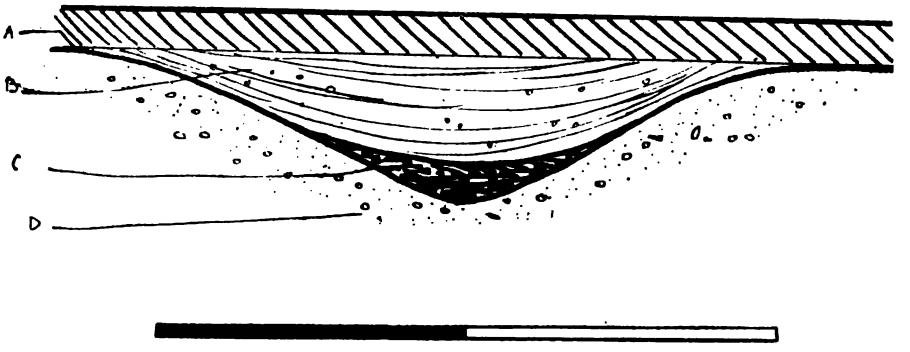
The smaller depressions from 1·25 m. to 3 m. in diameter, have already been identified as the hearths upon which, or rather perhaps we should say, the holes over which fires were kindled for cooking purposes. This theory seems to afford a satisfactory explanation of the depressions, and agrees with their sizes, forms, and contents.

[1] *Proc. Soc. Antiq.*, Lond., Second Series, vol. xvii, pp. 216–221.

Digitized by Google

Cooking by means of heated stones and also by heating the ground is by no means uncommon. In our own country we have a survival of such a primitive mode of cooking. In some parts of England, gypsies and country people still bake a hedgehog or other small animal by enveloping it in a covering of clay and then placing it in the midst of a fierce wood-fire made on the surface of the ground. The embers retain a considerable amount of heat for a long time, and the baking can be continued as long as is necessary without fresh fuel. When the operation is completed, the flesh of the hedgehog is said to be particularly tender, juicy, and well-flavoured. I give this upon hearsay evidence only, as I confess I have no actual experience of the matter.

The rural method of cooking potatoes in an iron pot without water and with the aperture of the pot closely stopped by a compact mass of earth, is another somewhat similar survival. In this method of cooking, as in that just described,



Scale of metres.

FIG. 4.—SECTION OF PIT CONTAINING EVIDENCES OF FIRE, WEST WICKHAM COMMON, KENT.

A. Peat and vegetable mould.
B. Sand and pebbles.
C. Bed of charcoal.
D. Undisturbed earth.

the flavour is said to be remarkably well preserved. In both cases this is doubtless due to the fact that the cooking is thorough, and that the enveloping clay makes it possible to retain those juices and flavours which would be driven off by the modern culinary methods.

In some of the islands of the North Pacific there is still in use a method of cooking whole animals by means of heated depressions in the ground, similar in all probability to that once adopted by the Neolithic tribes who resided at Hayes Common. It seems probable that this was the method of cooking generally employed by our Neolithic ancestors, and as far as we can understand the fire would have been made in the following manner. A hole was first dug in the ground from 1·25 m. to 3 m. across and about 75 cm. deep. Across this a number of dry oak branches were laid and fire was applied. Into this fire was placed the animal or joint that was required to be cooked, or if water was to be heated or a stew prepared, a number of fair-sized pebbles, placed among the burning embers, were

Digitized by Google

heated and used as pot-boilers in receptacles made of wood or other perishable substances, for it is pretty clear that no pottery was in use.

A section of one of these filled-up pits in which a cooking fire had been made was until recently well shown in the side of the gravel-pit at West Wickham Common. A diagram of this section is shown in Fig. 4. From this it will be seen that at the bottom of the pit was a mass of large fragments of wood, above which was a bed of sand and pebbles, and over all, a layer of peat and vegetable mould about 12·5 cm. thick.

It may be remarked that the evidence of the Hayes Common and West Wickham Common pit-dwellings is in accordance with the observations of Professor Boyd Dawkins,[1] who remarks that cooking operations in Neolithic times were generally carried on outside the dwelling.

The rarity of scrapers and crushers among the flint implements at Hayes Common and Croham Hurst is noteworthy. It may be accounted for, perhaps, by the fact that large pebbles suitable for use as crushers, are abundant at both of these places, and may very probably have been used as substitutes; whilst pebbles broken in halves by natural or artificial means, which are also plentiful, would make equally useful substitutes for those scrapers which are shaped by chipping.

Judging from the evidence of the implements, and from the character and amount of wear to which they have been subjected, it seems probable that the race who used them—the men and women living in the neighbourhood of the Kent and Surrey border in the Neolithic period—consisted of people of pacific occupations, tillers of the soil, and herdsmen. That they were highly accomplished in the art of making implements and weapons of flint is pretty clearly shown by the examples which have been preserved to the present day. Many of these must have been the result of much patient and skilful labour, but a large proportion have been sadly mutilated by the hard wear and rough usage of the plough-share, the harrow, the roll, and other implements used by the farmer in tilling his land in more recent years. The art of flint tool-making seems to have been carried to a high pitch of perfection at West Wickham in Neolithic times, and its pursuit probably formed the special, if not the sole, occupation of certain members of the tribe. What the implement-maker's materials were, and how he used them, we can judge from the contents of the workshop-floor at Millfield, and it is probable that we have there all that remains of the workshop from which the Neolithic tribes on Hayes Common were supplied with arrow-points, sickle-teeth, etc.

The Neolithic tribes inhabiting the district to which this paper refers would appear to have been, in a limited sense, nomadic in their habits, seldom staying long in one place but travelling about slowly, accompanied by their herds and their flocks. In the winter they would seek the shelter of the Surrey hills and in the warmer seasons they probably tilled the fertile valleys about West Wickham.

In conclusion, it may be pointed out that the evidences of prehistoric man in this country are being rapidly destroyed. In the locality to which this paper

[1] *Early Man in Britain*, 1880, p. 273.

Digitized by Google

relates the operations of the villa-builder and the pursuit of agricultural industries, but especially the former, are disturbing and obliterating these venerable and intensely interesting of British antiquities, and it is most desirable that every trace of prehistoric times should be carefully noted and recorded before these destructive influences shall have swept them entirely away.

Appendix.

In the following list a few particulars are given respecting the best defined and most characteristic types of implements discovered in the district to which this paper relates—a district which comprises the following parishes:—West Wickham, Hayes, and Keston, in Kent, and Shirley, Croydon, and Sanderstead, in Surrey.

In every case, except that of Millfield, which was excavated mainly by Mr. G. W. Smith, the following facts and statistics are based upon the discoveries of the writer and refer solely to specimens in his private collection.

Type A.— Simple flakes, usually triangular or quadrangular in section and from 2 cm. to 7 cm. in length.

Type B.—Flakes more or less modified or elaborated in form by secondary work.

Type C.—Flakes, much worn by use.

Type D.—Flakes converted into a more or less circular outline by means of secondary working. These are usually called scrapers, but it is evident from their varieties of form and the care with which they have been shaped that they were used for many different purposes besides the scraping of skins during the process of tanning. They were probably used for cutting and carving objects in wood and bone, and also for such work as would now be done by means of planes, adzes, etc. In several examples of these so-called scrapers there is a very decided tendency towards a tang, and a semi-circular indentation is often found on each side at the termination of the cutting edge.

Type E.—Scrapers resembling in many respects those included in type D, but more roughly formed and generally much thicker in section.

Type F.—Arrow-heads entirely shaped by minute and delicate working. Three entirely distinct forms are figured in the plate.

Type G.—Spear-heads, or possibly knives, more or less leaf-shaped in form and worked much in the same manner as arrow-heads (type F).

Type H.—Drills, formed by careful secondary working.

Type I.—Saws, usually of small size with minute indentations to serve as teeth, and a pronounced stop shown in two of the samples figured upon the lower left hand side.

Type J.—Straight and well-shaped flakes from which the pointed end has been broken off probably to serve as arrow points or sickle teeth. This type is mainly represented in the examples found at Millfield.

Digitized by Google

Type K.—Hollow scrapers. The form of these is well shown in the plate. The semi-circular indentations have been produced by very careful chipping. They have probably been used for the purpose of shaving and shaping the stems of arrows and other similar objects.

Type L.—Celts shaped entirely by chipping. The three examples figured are fragments, but that in the middle presents features of great merit and a high degree of skill.

Type M.—Celts formed partly by chipping and partly by grinding. The two examples figured have probably been intended to be hafted into a bone or wooden socket.

Type N.—Celts formed by chipping but presenting a surface almost, if not entirely, covered by subsequent grinding. Both of the specimens figured are imperfect, having been mutilated at each end.

Type O.—Hammer stones and grain crushers. The left hand specimen shown in the plate has been shaped by long continued wear into a flattened sphere. The other example is a quartzite pebble flattened at each end by wear. The material employed for these implements is almost always tough grey flint.

Type P.—Roughly shaped celt-like implements, probably hoes or similar agricultural implements. The upper end is roughly triangular in section, and was apparently intended to be bound into a cleft stick : the lower end merges into a celt-like form.

Specimens of these various types are figured upon the accompanying full-page plates (Plates XXII and XXIII). In addition to the sixteen types already described, the following may be mentioned in order to include fragments of flint which have resulted from the manufacture of implements, etc.

Type Q.—Chips—fragments of flint often retaining portions of the rough external coat of the flint nodule which have been struck off merely with the intention of reaching suitable material underneath.

Type R.—Cores—the blocks of flint from which flakes have been struck.

The distribution of these various types of implements, etc., among the different Neolithic sites identified and described in the paper is shown in the following table :—

Types.	Localities.				
	West Wickham.	Hayes Common.	Millfield, Keston.	Shirley.	Croham Hurst.
A. Flakes	881	40	61	6	90
B. Flakes with secondary work	13	—	—	—	—
C. Flakes, much worn by use	32	—	—	—	—
D. Scrapers (well formed)	30	—	—	—	—
E. Scrapers (roughly shaped)	85	5	—	—	—

Digitized by Google

Types.	Localities				
	West Wickham.	Hayes Common.	Millfield, Keston.	Shirley.	Croham Hurst.
F. Arrow-heads	9	—	—	—	—
G. Spear-heads, or knives	5	—	—	—	—
H. Drills....	13	—	—	—	—
I. Saws	12	—	—	—	—
J. Flakes from which the pointed ends have been broken.	2	—	400	—	—
K. Hollow scrapers	26	2	—	—	—
L. Celts, entirely formed by chipping	3	—	—	—	—
M. Celts, partly formed by chipping and partly by grinding.	2	—	—	—	—
N. Celts, covered with a ground surface.	3	—	—	—	—
O. Hammers	8	—	—	—	—
P. Hoes	7	—	—	—	—
Q. Chips....	549	50	475	5	48
R. Cores....	40	8	22	—	5

Discussion.

Mr. Lewis wished to congratulate both the author and the Institute on the paper they had just heard. He had visited the pits on Hayes Common some twenty years ago and had not been greatly impressed by them, but he was glad Mr. Clinch had been able to find so much valuable material in connection with them. So far as he had understood there was no evidence that the fires of which traces were found in the pits might not have been of comparatively recent date. He doubted whether the circle of 50 feet diameter had been roofed over, and thought it more likely to have been an enclosure for animals. Mr. Lewis proceeded to point out the difference between the remains described by Mr. Clinch and those of dwellings found at Carnbrae in Cornwall and Grimspound and elsewhere on Dartmoor, which latter were furnished with stone seats or bed-places, hearths, and holes made in the ground and used apparently for cooking by means of heated stones, and in one at least of which holes had been found a large pot.

Mr. J. Allen Brown said he knew the author many years ago when he began his investigations in Kent, and congratulated him on their result in the paper he had read, and on his having obtained the interesting collection on the table and the valuable information given as to its connection with the hut circles on Hayes Common and elsewhere in the neighbourhood. Judging from the forms and patina, the specimens appeared to be of late neolithic age, but there was no evidence of the fauna with which they were associated. There was, however, one specimen which in form and colour was quite unlike the others, and he would be glad to know under what condition it had been found, whether in peat or gravel. Its brown patina and axe-like form reminded him of the drift, although the

Digitized by Google

specimen clearly belonged to the division called neolithic. If the axe-head had been wider at the blade, thicker and less neatly made, it would then have been similar to axe-head specimens found in the river drift; as it is the implement appears to be one of those forms, belonging to a series which appears to bridge over the later palæolithic and the later stone age, we call neolithic, as classified in the speaker's paper read at the Institute in 1892 on the "Continuity of the Palæolithic and Neolithic Periods."

Mr. W. GOWLAND remarked that the paper was one of great interest, and a very important contribution to our knowledge of the habitations of neolithic man in this country. Circular dwellings have, as is well known, been found in several localities in Britain, notably on Dartmoor and the moorlands of Yorkshire; in these, however, the floors are but little, if at all, below the surface of the surrounding ground. Those which he had examined in both the above-mentioned districts originally possessed walls of rough stones, of greater or less height, from which the roofs sprang. In their immediate neighbourhood stones suitable for building the walls occur in abundance. In the district explored by Mr. Clinch no such materials are at hand. The floor was hence, he thought with him, sunk below the surface by digging a pit in order that the roof might be of a convenient height. On the other hand, it should be remembered that in other regions of the world, as in North-Eastern Asia and the northern islands of Japan, pit-dwellings are characteristic of a rigorous climate, and form the winter habitations of men who in the summer occupy huts on the ground-level.

Circular pit-dwellings seem to be rare in England, and the author is to be congratulated on his discovery of them in Surrey and Kent. Remains of these dwellings of neolithic times are, however, widely distributed in Northern Europe and in Germany, Austria, Hungary and Switzerland, the depth of the floor below the surface varying from 1 to 1·5 metre. They are also found in France.

In the north of Portugal some have been discovered with a block of stone in the centre of the floor, upon which rested a wooden post for the support of the roof. This tends to confirm the accuracy of Mr. Clinch's explanation of the use of the small mound in the same position in the Kent and Surrey examples.

The discovery of a cooking-place outside the dwellings is of considerable importance, as, he believed, no actual remains of an external fire had hitherto been found in England. He might mention that separate places for cooking, viz., small round houses apart from the dwelling, are to be seen at the present day in Finland.

From his own experience of dwellings not differing much in construction from those described in the paper, in several of which he had lived from time to time when exploring the Shinano-Hida range of mountains in Japan, he would say that culinary operations, except on a small scale, could not be conducted inside without risk of setting fire to the roof. A fireplace apart from the hut would hence be absolutely necessary when a large animal such as a deer or boar had to be cooked for the use of the community or several families.

This outside fireplace, too, doubtless played an important part in the discovery of the metals. It was, in fact, the first smelting furnace. The high temperature which would be often reached in it, when the fire was urged by a strong wind, would be quite sufficient for the reduction of the ores of the common metals to the

Digitized by Google

metallic state; so that, whenever any stones containing these ores became accidentally imbedded in the fuel, under conditions favourable for reduction, the discovery of the metals would certainly result.

EXHIBITION OF RUDE STONE IMPLEMENTS FROM THE STATE OF GWALIOR, CENTRAL INDIA. By FREDERICK SWYNNERTON, Esq., Simla.

THIS collection included numerous roughly-chipped fragments of jasper, chert, lydite, and other siliceous stones. Some of the objects exhibited were collected by Mr. Swynnerton from the alluvium of the plain on which the city of Gwalior stands. They occur in the gravel of the Sourrka River, and throughout the alluvium on the banks to a height of at least 20 feet; and are also found scattered over the surface far from the river. Others were obtained from, or near to, the surface of the ground at Raipur, 12 miles from Gwalior. The collection also included some large quartzite implements of palæolithic type, found on the surface at Raipur by C. Maries, Esq., of Gwalior.

SPECIAL JOINT MEETING OF THE INSTITUTE AND THE FOLKLORE SOCIETY.

JUNE 27TH, 1899.

C. H. READ, Esq., F.S.A., *President, in the Chair.*

The CHAIRMAN explained that this Joint Meeting had been called by the desire of the Folklore Society to welcome Professor Frederick Starr of the University of Chicago, and he would therefore vacate the chair in favour of the President of the Folklore Society.

Mr. E. SIDNEY HARTLAND, F.S.A., President of the Folklore Society, then took the Chair, and expressed the thanks of his Society for the reception the Institute had given them and their friend Professor Starr, who had most generously presented the Society with the interesting objects they now saw before them, and who would favour them with some account of his collection.

Professor F. STARR, of Chicago, then gave an address explanatory of the large collection of objects illustrating the Folklore of Mexico.

The CHAIRMAN wound up the proceedings by describing the kindly reception he had received in Chicago from Professor Starr, and proposed a vote of thanks to him for his very able address, which was supported by Mr. G. L. GOMME and Mr. A. L. LEWIS, and carried unanimously.

Digitized by Google

ON THE MEDIÆVAL POPULATION OF BRISTOL.

By Dr. Beddoe, LL.D., F.R.S.

It is now a good many years since, to the lasting disfigurement and discredit of our ancient city, the church of St. Werburgh, with its beautiful tower, was cleared away from Corn Street. I was one of the, I believe very few, people who derived some advantage from this barbarous proceeding, of which, however, I have the satisfaction of remembering that I was one of the active opponents. A large number of skeletons was dug out from below the vaults in the church, and a good many from the churchyard adjoining, in which, however, interments had ceased for many years. The former series must have dated from before 1761, at which date the church was partially rebuilt; but they were all probably much older, in fact pretty certainly mediæval. The latter were comparatively modern, but not recent. Of the former I found 36 measurable, and of the latter 17, numbers sufficient to afford a basis of induction. Their measurements were printed in the *Bristol and Gloucestershire Archæological Transactions*, and in my *Races of Britain*. I am not going to inflict them on you now, but will say briefly that the mediæval skulls were somewhat short, broad and, if anything, low, flattish, rounded, with rather small frontal region, but otherwise well filled. Their average breadth-index was exactly 80, *i.e.*, on the confines of mesokephaly and brachykephaly, by Topinard's notation. On the other hand, the modern skulls were mostly of quite different type; in fact not one of the 17 distinctly resembled the small round type just described, and which prevailed in the mediæval series. They were mostly rather large longish crania, nowise distinguishable from those we see on the shoulders of our neighbours in Somerset and Gloucestershire, and their average breadth-index was 76·6.

There are sundry circumstances which may influence the relation that the cranial index bears to the kephalic, the dead to the living one, for example the degree of dryness, as De Lapouge has shown. But we have most of us got into the habit of adding two degrees to the index of the skull, in order to get that of the living head. I apprehend that my distinguished friend (M. Topinard) will tell you two degrees are too much. But even if we added nothing, 80 would be a very high index for a series of 36 English skulls, while 76·6 would be a low one for the living head. The discrepancy needs explanation.

I have been disposed to attribute it to the presence in the earlier or mediæval series of a larger proportion of French blood. We know that for centuries after the Norman Conquest natives of France continued to filter into this country, where the use of the French language among the upper classes must have given the immigrants certain advantages. Moreover Bristol, perhaps more than most other English ports, carried on an active commerce with the English dominions in France,

Digitized by Google

To show the intimacy of these relations, I will quote a passage from Mr. Fuller's paper on the Tallage of Edward II. He says that among the rebellious Bristolians in 1316, the Sheriff of Gloucestershire alleged that there were "a great multitude of evildoers, as well *men of Bayonne* as Welshmen, added to them, levied as for war against the King."

Now these men of Bayonne, or rather their posterity at the present day, are a moderately brachykephalic folk, with a living index of 83½, according to Collignon. In other parts of Gascony the index varies, here higher, there a little lower; but, on the whole, in all the west of France, except around the embouchures of the Gironde, the Dordogne and the Charente, and in the valley of the Vienne, the headform is so broad that a large importation of the breed into Bristol might account for the phenomena.

Now lately I have gotten some evidence of another kind, which seems to point the same way. In Mr. Fuller's paper, just now quoted, are a list of nearly 1,000 persons liable to tallage under Edward II, and one of upwards of 300 liable to pay subsidy in the first year of Edward III. I have analysed the surnames in these lists, and estimated therefrom the strength of the French element in the population. My plan is this: I take the certainly French names, such as Maltravers, Gurney, the somewhat doubtful ones, such as Tilly, Murrell, the French nicknames, as Bellamy, Blundell, Russell, names indicative of a French birthplace, as Pickard, Dole, the French trade names, as Taylor, Bullinger, and the French names of office or condition, as Clerk, Bailey; and ascertain the proportion which all these bear to the whole list of names. In Bristol, in Edward II's time, this proportion was 20 per cent. Now of course I cannot claim that this was the real proportion of the French blood-element in the population; that may have been much greater or much less. But I do think that my plan is a good one for comparing the strength of the French element in different parts of England.

Surnames were not absolutely fixed in Bristol in the early part of the fourteenth century, but they were nearly so. In the South Midland district, to judge from facts in the Hundred Rolls, they had been nearly so in the latter part of the thirteenth century. But in Wales there were no fixed surnames until very long afterwards; which may be one, but only one, of the reasons why so few Welshmen can be made out in these tallage lists.

On applying the test described I find the French element much stronger in Bristol lists than in lists from Malmesbury, Minety or Gillingham, of about the same or an earlier date; less too than in Devonshire, though it is my belief that the French immigration into that county, chiefly from Bretagne, had been considerable. The figures are[1]:

Bristol—1st list, 20 per cent.; 2nd list, 23·2. Malmesbury Abbey tenants, 11·3; Minety (Wiltshire), 8·2; Gillingham (Dorset), 11·9; Devonshire, 17 per cent. Kent, Norfolk, Suffolk, in the Hundred Rolls, vary from 15·4 to 17·3. But in the South-East Midlands the French settlers seem

[1] Bristol leaders of the King's party and of the revolters, 33 per cent.

Digitized by Google

to have been very numerous, and these are just the districts respecting which the Hundred Rolls give us the fullest information. In Bedfordshire, for example, the free tenants give 39 per cent. of names of French type, the more numerous villan tenants 17; and at the present day the ratepayers of two Bedfordshire parishes give me 20 per cent. I suppose there was much infiltration of Frenchmen thither from London; and I think the prevailing form of head thereabouts is still roundish, and the stature short.

Other points notable in these Bristol lists are the fewness of patronymics, the often French type of those that do occur (*e.g.*, Everard), the scarcity of Welshmen, the great number of people designated from their trades, and the very great number bearing local specific names, such as Derby, Warminster, and the like. These immigrants would seem to have come in large proportion from other towns, rather than from the country surrounding Bristol.

Let us allow, provisionally, that the roundness of mediæval Bristolian heads may be accounted for by the largeness of the French element. Why then did this round type subsequently disappear?

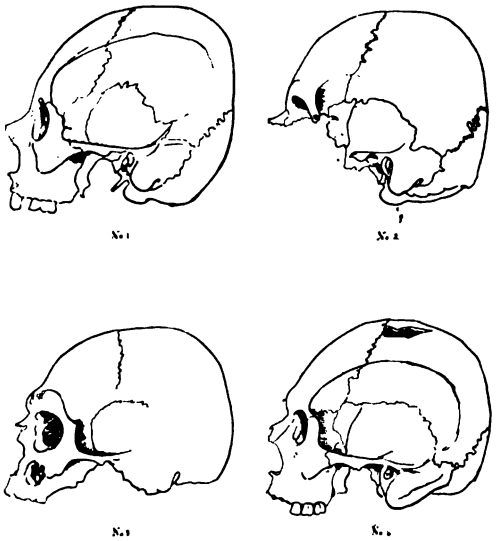
The conditions of life in mediæval cities were extremely unfavourable, and the mortality excessive. Mr. Fuller remarks that enormous changes had taken place in the constituency during the interval of fourteen years between the compilations of his two lists. The second is even more French than the first (23·2 per cent. against 20) and considering the active intercourse with Gascony and Guienne during the reign of Edward III, it may very well have been that the French element continued to increase for some time. But the subsequent loss of Aquitaine must have cut off the supply. I have analysed the list of Bristol testators in the Great Orphan Book, which has lately been edited by Mr. Edward Alexander Fry, and I find that in the fifteenth and the latter part of the fourteenth century the French element, as already defined, has decreased to 18·4 per cent. Welshmen have begun to come in and to settle—there are 2 per cent. of positively identifiable Welshmen, and 3 per cent. of probable Welshmen, Thomases and Richardses and the like. Local specific names continue very numerous, but trade names have greatly diminished; possibly they were oftener applied than acknowledged.

In the sixteenth century the French surnames had declined to 14·2 per cent.; the Welshmen and probable Welshmen, under the Tudors, were streaming in apace, and amounted to 6·4 and 8·3 respectively; and what I call the local general names, such as Hall, Green, Townsend, Atwood, names indicative of a rural origin, had much increased. Evidently the older population had largely died out or scattered itself elsewhere, and its place was being filled up from Wales, Gloucestershire and Somerset. The same processes have continued ever since, except that the Welsh immigration, contrary perhaps to what might have been expected, has rather slackened than otherwise, especially since the development of the Welsh coalfield began. In fact there are fewer Welsh surnames now in Bristol than in the sixteenth century. Irish immigration has never been considerable.

Digitized by Google

Digitized by Google





A SKULL FROM SYRIA.

Digitized by Google

NOTE ON A SKULL FROM SYRIA.

By W. L. H. Duckworth, M.A., Fellow of Jesus College, Cambridge.

[WITH PLATE XXIV.]

The specimen under consideration is the massive skull of an adult male which was picked up near Damascus after the massacres of 1860. For the loan of this specimen I am indebted to C. W. Cunnington, Esq., and I have made some notes descriptive of its more striking features. Mr. Cunnington kindly made some of the measurements which are appended.

The skull is of considerable weight and capacity (the latter being about 1650 c.c.). It bears four distinct wounds to which no doubt death was due. At the bregma is a large and nearly quadrate hole, from which the missing piece of the left parietal bone was no doubt removed by a sword cut, of which unmistakable evidence is afforded by the clean-cut character of the posterior margin (45 mm. in length). From this side, a crack or fissure traverses the left parietal bone obliquely to end eventually in the lambdoid suture. At the external angular process of the frontal bone on the left side is a large deficiency due to destruction of the superciliary margin and parts adjacent to it, leaving a depression of cup-like shape and about 20 mm. in diameter. The third wound is a clean cut 36 mm. long just above the right parietal eminence: and a fourth wound is seen as a clean-edged incision dividing the root of the left zygomatic arch. Part of the lateral margin of the skeleton of the nose is absent from the right side, but there is no certain indication that this deficiency is of a traumatic nature. However this may be, the condition of the bones of the cranial vault affords abundant evidence of violence.

Most of the teeth have dropped out, but those remaining are of large size and good quality. Otherwise the skull is in good preservation and has suffered little or nothing by weathering. Having remarked the massive glabellar prominence and other muscular ridges and prominences, the asymmetry of the specimen next demands attention. The skull is plagiocephalic. There is great parieto-occipital flattening, but this is much more marked on the right than on the left side, so that there is comparatively great backward projection on the left side of the conjoined parietal bones (the sagittal suture has long been closed by ossification). But it is remarkable that while thus laterally asymmetrical, there is no concomitant torsion or even lateral flexion of the basis cranii, and that the occipital condyles, though dissimilar in size, are on the same horizontal plane (which is a somewhat unusual occurrence in plagiocephalic crania).

From the indices (see Table) the skull will be seen to be brachycephalic,

Digitized by Google

akrocephalic, orthognathous, microseme, and leptorhine. The figure representing its cubic capacity places it in the megacephalic division (Flower).

The skull may be compared in the first instance to a specimen in the museum at Nicosia, Cyprus (for a sketch of which I am indebted to my brother, the Rev. H. T. Forbes Duckworth, M.A.), in which the same features of prominent brow ridges with parieto-occipital flattening are seen to be associated But the Nicosia skull does not present marked asymmetry.

Turning to the Syrian skulls in the Anatomical Museum at Cambridge, I will only mention here, as a full description of these skulls will shortly be published by E. M. Corner, M.A., that at least two types are recognisable, and that of skulls presenting parieto-occipital flattening of a degree comparable with that of the Damascus specimen, only one was found, whose outline is here figured (*cf.* No. 2, Fig. 2). The latter, however, while resembling the Damascus cranium in this respect, in all others resembles more closely a skull figured by Topinard and described as the artificially deformed cranium of a Maronite (*cf.* No. 1, Fig. 2). According to this author, artificial deformation is habitual among the Maronites. This must not be overlooked in basing comparisons on the contours of various crania from this region.

For accounts of other skulls from Syria, we are indebted to Pruner-Bey and Dr. Paul Langerhans. In a communication made in 1866 to the Société Anthropologique de Paris,[1] Pruner-Bey describes a series of about sixteen crania, and it is interesting to note that twelve of these were collected under similar circumstances, and at about the same time as our Damascus specimen, so that there is reason to suppose that they belonged to individuals whose lives had been lost in the massacres. Of these twelve, three present features distinctly akin to those of Arab crania, while the remaining nine are as a series characterized by the great prominence of the glabella, in addition to unusually massive mastoid processes and nuchal crests. Now it is noteworthy that Pruner-Bey, while mentioning the brachycephalic character as a feature of the group, and speculating on the cause of the parieto-occipital flattening, which is also frequently present, yet concludes that the crania represent "le type sémitique de la branche syrienne," while admitting in the next words that "par leur structure massive, par leur volume et par le grossissement des traits de la figure, ils différent sensiblement du crâne arabe."

He subsequently admits the possibility of the skulls having belonged to a mixed race, and suggests that two of them may have been those of individuals with Turkish blood in their veins. As a group, however, they could not be referred to a Turanian stock.

Now from this description I think that the Damascus skull would come well into line with the nine crania described as a group by Pruner-Bey, and it may be repeated that the circumstances under which they were procured were similar. [But I do not think that from the published description Pruner-Bey is

[1] *Bulletins de la Société Anthropologique de Paris*, 2e Série, tome i, p. 563.

Digitized by Google

justified in the conclusion that the series represents the Syrian branch of the Semitic type.]

Before continuing this discussion, it will be as well to refer to Dr. Paul Langerhans' careful paper in the *Archiv für Anthropologie*, Band vii, 1873, entitled, "Die heutige Einbewohner des Heiligen Landes." The author had at his disposal eight skulls from Es Salt, said to be relics of a skirmish between Government troops and Beduins. These specimens are not described in detail, as they are not considered of sufficiently authentic origin. Six other crania (Amman, Philadelphia) are considered to be of indubitable Beduin origin: these are dolicho-cephalic and less capacious than the Damascus cranium, and bear no general resemblance at all to that specimen. Dr. Langerhans, it should be noted, finds a difference between the true Beduin skulls and those of the peasant population of Syria, the latter possessing somewhat larger skulls than the former.

From a perusal of Dr. Langerhans' communication it will be concluded that the Damascus cranium is very improbably that of a Beduin, and having excluded that contingency as completely as possible, we may turn to the characters of the skulls of Turks, remembering that Government (*i.e.*, Turkish) troops were involved in the later stages of the "massacres," and that this consideration must not be neglected in forming an opinion of the nature of the Damascus cranium.

Taking the various descriptions of the Turkish cranium in their historical order we may note that *Vesalius* (quoted by Blumenbach, Hamy *et alii*), in his *Corporis humani fabrica* (sixteenth century), mentions the occipital flattening of the skulls of Turks, and remarks on the part played by the midwives in the artificial production of such deformity in infants (it is noteworthy that this deformation is mechanically produced in the skulls of new-born infants when the presentation, to use the language of the obstetrician, has been of the occipito-posterior variety).

Sandifort (*Tabulæ craniorum diversarum nationum*, eighteenth century) figures as his typical Turkish skull, a cranium with immensely prominent glabella reminding one of the Damascus and Nicosia specimens: occipital flattening is not a feature of the figure given by Sandifort.

Blumenbach gives a series of descriptive characters of the Turkish skull which is almost completely realised by the Damascus specimen (see quotation by Davis in *Thesaurus Craniorum*, p. 124, viz., "Calvaria fere globosa: occipito scil: vix ullo, cum foramen magnum pene ad extremum baseos cranii positum sit, Frons latior. Glabella prominens").

[*Carus* figures a Turkish skull, but I have not been able to consult the reference.]

Retzius (*Ethnologische Schriften*, 1864) figures (Plate III, Fig. 6) the cranium of a Turk considered to be of typical form: the parieto-occipital flattening referred to by Blumenbach is well seen. Retzius places the Turks in his division "Brachycephalæ orthognathæ."

Digitized by Google

Davis (in the *Thesaurus Craniorum*), from the consideration of two crania of Turks in his possession, comments favourably on the accuracy of Blumenbach's description.

Weisbach, in 1873 (*Mittheilungen der Anthropologischen Gesellschaft in Wien*, p. 220) gave a description of the cranial forms of the Turks, based on the examination of about seventy crania from the suburbs of Constantinople. He admits (*cf.* Hamy in *Crania Ethnica*) that there may be included crania of "Albanesen, Tscherkessen, Syrier, Araber," but he excluded all that gave any evidence of negroid affinities. He figures a skull somewhat resembling the Nicosia specimen. Weisbach concludes from his observations that "Der Schädel der Turken ist mithin mittelgross, schwer (dick knochig), kurz, hoch, relativ breit, in sagittaler und coronaler Richtung sehr stark gewölbt"—all of which features are reproduced in the Damascus skull with the exception of the cranial capacity which renders necessary the substitution of the term megacephalic for "mittelgross."

Flower (*Catal. Roy. Coll. Surg.*), however, records the capacities of two crania of Turks, and these are respectively as great as and greater than that of the Damascus specimen. Capacities of over 1,600 c.c. are also quoted by other authors.

Hamy in *l'Anthropologie*, 1895, insists on the "aplatissement pariéto-occipital commun à tous les Turcs" and the development in vertical height: and the same author in *Crania Ethnica* (wherein an extensive bibliography will be found), gives a remarkable note in describing the southward expansion of the Turks into Syria, where they are said to have produced a marked influence as far as "la montagne des Ansariés" and "les Yéhalines." "La montagne des Ansariés" may be presumed to be the range of that name to the north of the Lebanon. The note just referred to deals with the characters of skulls measured by M. León Cahun, who obtained them when on a scientific mission to "la montagne des Ansariés." The quotation runs as follows: "Cinq crânes d'Ansariés de Kerdaha près Calbié sur sept recueillis par le voyageur, offrent la deformation parieto-occipitale plus accusée à droite qu'à gauche. Ils ont en commun l'indice 84·57 diam. a-p. 175 diam. tr. max. 148." And certainly the specimen figured in *Crania Ethnica* is not lacking in other resemblances to the Damascus cranium, in which, as has been already indicated, the parieto-occipital flattening is more accentuated on the right than on the left side (just as in the Ansariés). The religion which has gained their peculiar name for the Ansariés seems to have been practised in Northern Syria for the last thousand years (*cf.* Lyde, *The Asian Mystery*, p. 67). Lieut. Walpole (*The Ansayrii*, vol. iii, p. 342) indeed suggests that they are referred to even by Pliny, and adds a note as to their physical appearance, "They are a fine large race with more bone and muscle than is generally found among Orientals: browner than the Osmanlee but lighter, fairer than the Arab." Walpole moreover recognises that their numbers have been recruited from very various ethnical sources.

Dr. v. Luschan has in the *Archiv für Anthropologie* (Bd. 19, 1891) recorded the results of an enquiry into the cranial forms of inhabitants of Lykia, and finds that brachycephalic crania are there as frequent as the dolichocephalic

Digitized by Google

varieties; he further refers certain hypsi-brachycephalic crania to what he calls an "armenische" or "armenoide" race: as similar skull-forms occurred on two occasions in very ancient graves, v. Luschan bases hereon a theory of the existence of an aboriginal "Armenian" race in this region. The Damascus skull agrees with some of these skulls from Lykia in being hypsi-brachycephalic, and with the "Armenian" skull figured in Dr. von Luschan's paper (Fig. 17) in its general contour.

Professor Sergi in his *Ursprung des Mittelländischen Stammes* describes various skull-forms occurring on the Mediterranean shores, but the Damascus skull can be referred to no form considered by Sergi to be characteristic of the "Mediterranean" race: on the other hand its rotundity and elevated character assign to it a place among the crania compared by Sergi (*Ursprung des Mittelländischen Stammes*—Deutsch von Dr. Byhan, p. 134) to Mongolian skulls.

Finally, the frequency of occurrence of brachycephalic crania in Asia Minor is further insisted on by Elisyeef (who found the average breadth index to be 86, the number of observations being 143) and Chantre (breadth index: average of 120 observations on males, 84·5). The two latter observations are quoted by Ripley in his *Races of Europe* (1899).

The attempt to sum up the evidence may now be made, and it will, I think, lead to the following conclusions:—

(i.) That the Damascus cranium is very similar in general contour and especially in the peculiar character of its asymmetry to certain skulls from "la montagne des Ansariés" (one of which is figured in *Crania Ethnica*, Plate LXXXV, Figs. 3 and 4), immediately to the north of the Lebanon range.

(ii.) That the Damascus cranium resembles nine of the skulls obtained in Syria under similar circumstances by M. Girard de Rialle, and described by Pruner-Bey in the *Bulletin de la Société Anthropologique de Paris* (1866, p. 563 *et seq.*).

(iii.) That the Damascus cranium resembles skulls described or figured by Sandifort, Blumenbach, Davis, Weisbach, Flower, Hamy, *et aliis*, as typical Turkish crania, and also, in certain features, the skull in the Museum at Nicosia.

(iv.) That the description of the Damascus cranium as representing a form common among peoples of Turkish origin, is not prejudiced by the fact that Pruner-Bey ascribed the nine skulls (referred to in conclusion ii, as similar to the Damascus cranium) to the Syrian branch of the Semitic type, considering they did not correspond to any Turanian type. For as regards the Syrian branch of the Semitic type, the features in which the said nine skulls resemble that somewhat vaguely defined cranial form are not clearly stated by Pruner-Bey, whereas the clearly specified features wherein they depart from the Arab type of cranium are the very characters which one would from

Digitized by Google

the study of the various works quoted, bring together as typical of the skulls of Turks.

(v.) That if the argument in No. iv. is sound, the Damascus skull and skulls like it might warrantably be described as Turanian as this type is understood by some authors (*ex. gr.* von Hölder), but that as descriptive of cranial forms, such terms as Turanian and Semitic are better avoided until they have been more clearly defined.

(vi.) Lastly, that large heavy-browed massive skulls with occipital flattening occur in many localities adjacent to the eastern shores of the Mediterranean; they seem to be associated with the Turkish inhabitants of those regions, and when they combine a high altitudinal index with distinct brachycephaly, are compared by Sergi to "Mongolian" crania. They thus come into line with certain crania found in the Crimea by Demidoff (*cf. Exploration de la Russie méridionale*), in Kurdistan (*cf. Crania Ethnica*), and lastly, they have some points of resemblance to a skull found in Eastern Turkestan which is mentioned in an elaborate memoir by Professor Rudolf Hoernle in the *Transactions of the Royal Asiatic Society*. The specimen, which was found in a mound with a number of MSS., and is at present deposited in the Cambridge collection, is a short broad skull with the same parieto-occipital flattening as the Damascus skull, from which, however, it differs in being much less massive. It is to be hoped that future research will enable the whole of the lacunæ between the foregoing examples to be filled up, till a completely imperceptible transition from one form to another shall be demonstrable.

Dimensions, etc., of a Syrian Skull. From near Damascus, picked up after the massacre of 1860:

Maximum length	180
Ophryo-iniac length	180
Maximum breadth	148
Bi-auricular breadth	131
Bi-stephanic breadth	120
Bi-zygomatic breadth	144
Measurement from Basion to Glabella ...	116
" " " Nasion ...	107
" " " Alveolar point	105
" " " Bregma ...	152
" " " Obelion ...	145
" " " Lambda ...	119
" " " Inion... ...	78
" " " Opisthion ...	37
Orbital height	34

Digitized by Google

Orbital breadth	43
Nasal height	57
Nasal width	25
Palato-maxillary length	57
Palato-maxillary breadth	68
Jugo-nasal arc	115
Jugo-nasal width	101
Horizontal circumference	526
Radii:	
Auriculo-Alveolar	106
-Nasal	101
-Glabellar	108
-Bregmatic	139
-Obelial	135
-Lambdoid	112
-Iniac	81

Indices.

Cephalic (or breadth)	82·2
Altitudinal (or height)	84·4
Alveolar	98·1
Orbital	79·1
Nasal	43·8
Palato-maxillary (Flower)	119·3
Naso-malar	113·8
Facial (Kollmann)	53·4
Stephano-zygomatic	83·4
Other measurements and indices:	
Nasi-alveolar length	77
Angle of Cloquet...	68°
Angle of Jacquart	74°
Cubic capacity	1,650

The illustrations accompanying this note are:—

Fig. 1.—The Damascus Cranium in Norma Lateralis: left side.

„ 2.—Outline tracings of four crania all reduced to the same dimensions (*i.e.*, the naso-lambdoid line is identical throughout the series).

No. 1.—Simple deformation in a Maronite skull (from Topinard).

„ 2.—Specimen 1237 in the Cambridge Anatomical Museum [a skull from Bassus Tower, Syria, forming part of the Tyrwhitt Drake Collection].

„ 3.—A skull in the Nicosia Museum, Cyprus.

„ 4.—The Damascus skull.

Digitized by Google

SOME AUSTRALIAN TREE CARVINGS.

By Herbert Perkins.

[with plates xxv to xxvii.]

The originals of my photographs are in the Australian Museum, Sydney. They form a collection unique of its kind, consisting of twenty-two logs or trunks of trees that have been cut down in various localities and presented to the Museum at different times. Through the kind permission extended to me by the trustees of the institution and its curator, Robert Etheridge, Esq., Junr., I was enabled to have a series of twelve photographs of them taken for the purpose of illustrating this article.

Unfortunately there is very little known of the history of these carvings, or of their actual meaning. What they are intended to represent or commemorate is very largely a matter of conjecture.

"In fact," as Mr. Etheridge, to whom I am indebted for my rather meagre information, said to me, "we know absolutely nothing reliable about them. Where some lingering native tradition has survived it has been embodied in the label attached to the exhibit. It is, however, known that all these carvings are of an earlier date than the exploration and settlement of the country by Europeans, and there is no instance on record of similar work having been done by the aborigines since that time."

It has also been ascertained that the area over which they are distributed is very limited. It may be roughly described as a long narrow strip of country running north and south, on the western side of and nearly parallel to the main range, and wholly situated in the central portion of the Colony of New South Wales.

Outside these limits similar tree carvings have not, I believe, been discovered in Australia.

In the Museum are six photographs showing the trees as they actually appeared standing in the bush, and I may mention here that all the carved trees found were dead ones. Of these there is no further information obtainable other than what the various labels state, which are as follows:—

"Trees carved by Aborigines near Dubbo, N.S.W."

"Trunk of tree carved by Aborigines near Dubbo, N.S.W. This carving is possibly intended to commemorate some circumstance connected with the Boomerang."

"Trunk of tree carved by Aborigines near Guntewong, N.S.W. Placed to mark the grave of a 'Doctor' or 'Medicine Man' at 'Derwent

Digitized by Google



TREE CARVINGS, NEW SOUTH WALES.

Digitized by Google

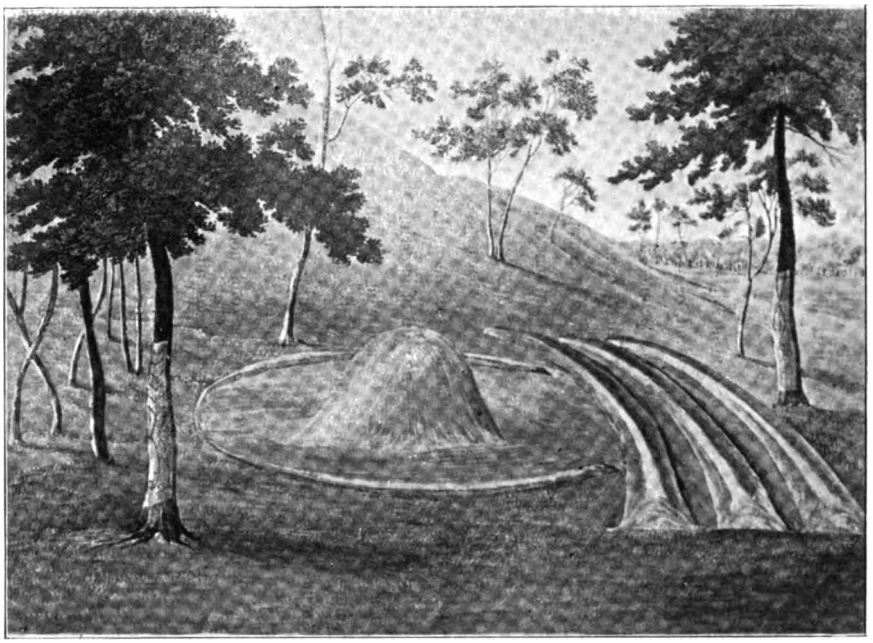
Digitized by Google



TREE CARVINGS, NEW SOUTH WALES.

Digitized by Google

Digitized by Google



THE GRAVE OF A NATIVE OF AUSTRALIA.

(From Oxley's *Expeditions*, p. 139.)

Digitized by Google

Digitized by Google

Park' near Gunnedah. In the upper half is delineated the 'Cobra' or head of the deceased and in the lower his distinguishing scarifications."

"This information obtained by Mr. Henry Powell, the local 'Forest Ranger.'"

"Trunk of tree carved by Aborigines at Narramine, N.S.W. Placed to mark the grave of a head-man of the 'Macquarie Tribe,' who was a noted 'Boomerang' thrower, and killed in a tribal fight with the 'Bogan Blacks.' The carvings are possibly intended for Boomerangs to commemorate this."

So much for the description of these remarkable carvings. As to whether there may be any further meaning in them beyond that of the somewhat vague legends and surmises given above is, I think, a matter for legitimate speculation. It occurred to me that the carvings might have some connection with the "Bora rites."

What are commonly known as "Bora Grounds," the places where the "Bora" rites or rites of initiation of youths into manhood are carried out, were invariably ornamented by certain designs, generally traced in deep furrows in the ground, and even in some exceptional cases where there was a smooth rock surface cut into the rock. These designs are most remarkably similar to some of the carvings. I have come across several of these "Bora Grounds" in the course of my wanderings in the Australian bush during the last forty-one years, and can therefore speak of them from personal experience.

I would therefore venture the suggestion that some of these carvings may have been executed on the trees to mark the sites of certain particular "Bora Grounds," or even perhaps in some cases to mark the place of, and to commemorate the initiation of, some individual celebrated afterwards among the tribes.

The fact of not finding any tracings or designs on the ground near the trees is easily explained, as if not purposely obliterated, they would quickly become so through the action of the weather.

Note.—Mr. Perkins enclosed with his paper photographs of all the specimens in the Museum, but it was found impossible to reproduce them all, more especially as the greater number are published in the *Ethnographical Album of the Pacific Islands*, 3rd Series. A plate from Oxley's *Expeditions into the interior of New South Wales*, p. 139, is inserted in order to show similar carvings on trees standihg near to the grave of a native.—EDITOR *J.A.I.*

Digitized by Google

DIALECT CHANGES IN THE POLYNESIAN LANGUAGES.

By Rev. Samuel Ella.

Passing through many channels, and intermingling with other tongues, which either already existed among earlier aborigines of the islands, or were introduced by subsequent immigrations, the Polynesian languages or dialects have undergone considerable changes.

In tracing these changes we find that a peculiar phonetic has been adopted, perhaps at first by a few only, and not by the entire people, but in course of time the peculiarity has become general and national, and thus created a new dialect diverse from the original. This process is now taking place in Samoa. Most of the natives of the eastern island, Tutuila, substituted *k* for *t*. Of late years some of the young people of Upolu affected the same pronunciation, and this pernicious fashion is being generally followed. Not only so, but they are changing *g*=*ng* for *n*; thus, instead of saying *tangata* they say *kanaka*, and so forth, bringing the Samoan dialect to nearly resemble the Hawaiian. In some instances they also reject the Samoan break, or catch, and introduce *k* in its place. Probably the latter was originally the common mode of pronunciation, but was softened by the Samoans.

A vocal impediment in an individual may spread to the family, through affecting the pronunciation, and being still further simulated by others, in the process of time become general. I once met with a Samoan chief in the east of Upolu who changed both *f* and *t* to *k*. His parting adieu struck me as very eccentric; instead of the usual "*Tofā, outou faifeau!*" (Good-bye, missionaries), he said, "*Kokā, oukou kaikeau.*" His utterance sounded very guttural and objectionable to Samoan ears, and was not likely to be imitated.

Another cause of alterations in words of the common colloquial arises from a peculiar *tabu* prevailing in some of the groups, as the Marquesas and Society Islands. A high chief would select for his name or that of his son (heir apparent), the name of a familiar article, or a quality, or action. In such a case the common word is tabued, and must no longer be used in its ordinary sense, and it is replaced by another, coined for the occasion. For example, the king of Tahiti being much troubled at night by a cough assumed the name of Po-mare (night-cough). Immediately *po* (night) was dropped from common use, and *rui* accepted in its place, and *mare* was changed to *kare*. *Rui* is formed from *uri* (dark or darkness) by a simple transposition of letters. This peculiar custom is called

Digitized by Google

"*tepi*" by the Tahitians. One of the old missionaries mentions upwards of forty words so changed in his time.

All Polynesian dialects have a profusion of obsolete words, more or less numerous, which were once in ordinary use in their colloquial, as evidenced by words found in their ancient songs and myths. The old orators among the people, are proud to employ them in their public councils, but they are never heard on other occasions. Some words that have passed out of use in one dialect may be found in the ordinary colloquial of another.

In reviewing the Eastern Polynesian dialects I shall make a few brief remarks on each, and show how far they correspond and in what they differ. The illustrations contained in the Comparative Vocabulary (see the Appendix), will perhaps help to elucidate what is said on the subject. In this vocabulary I have selected a few words of common use. Although a more extended vocabulary would be found very serviceable to philologists, it did not seem desirable to occupy more space in the present paper, or enlarge on the topics treated in this cursory review. A volume might (and may at sometime) be prepared on this subject, and prove very acceptable and helpful to many. I take the Samoan as a basis, and as the most refined and complete in grammatical construction; and it will be seen that there is a perfection in this dialect, both in its phonesis and structure, not so clearly visible in the other Polynesian dialects. It will not be necessary here to add the language of courtesy or deference, called "Chiefs' Language," always employed in speaking to, or of, chiefs, which comprises a considerable change in many nouns and verbs, and in some instances varies in accordance with the status of the chief addressed or referred to.[1]

The SAMOAN alphabet consists of fourteen letters only, comprising the five vowels—*a, e, i, o, u,* and nine consonants—*f, g,=ng, l, m, n, p, s, t, v.* The vowels are pronounced as in French, Italian, etc.; *u* as *oo* in "root." The consonants seldom vary from the ordinary English sound, though *l* occasionally is pronounced as a soft *r*; *g* is a slight nasal as *ng* in "king," not so strong a nasal as *n* in "French." In most of the Polynesian dialects it is represented by *ng*. *S* is mostly a soft sibilant. It is absent from the other dialects excepting Rotuman. In some islands, containing mixed races of Samoans and Tongans, *t* is often pronounced as *ts* or *tz*. In other lands, *t* is changed to *d* or *k*, and *s* to *h*.

The vowels are variously accentuated; they may be short or long, broad and open, or acute. As a general rule, special care is used in a distinct enunciation of the vowel sounds, for words containing the same letters differ widely in meaning according to the accentuation of the vowels; *e.g., mama* may mean a ring, or clean, or light, or shame, according as it is pronounced.

H and *k*, freely used in other Polynesian dialects, have been elided from the Samoan,[2] and replaced by a break or catch. This is represented in its written

[1] This language of deference exists in Java, and is there called *bhasa-krama*.

[2] Of late years *k* has been substituted for *t*.

Digitized by Google

form by an inverted comma (‘). In books printed for native use, this sign is omitted except in words which might be mistaken from its omission.

In the many different dialects of Polynesia the vowels are for the most part retained throughout, and remain intact in corresponding words of each dialect, but it is very different with respect to the consonants, for these have undergone changes in the several groups of islands. The *Maoris* have made the most numerous alterations. They also largely interchange vowels in their own vocables; *d* readily interchanges with *t*, and often the sound is so indistinct that it is difficult for an unpractised ear to discern which is used. *F* is omitted and replaced by *w*, *wh*, *v*, *n*, and *p*; *l* is represented by *r*; and *s* is altered to *h* and *v*; and *k* is used where Samoans employ *t*, and *w* for *v* generally. Maoris in their peculiar phonetic give *wh* for *f*, generally at the beginning of words, as *whare* for *fale*, *fare*, etc.[1]

In a few cases in each dialect vowels are interchanged, perhaps as the result of careless speaking; for, as a general rule, Polynesians pay special attention both to the placement and exact pronunciation of vowels. Maoris are less strict, for they have a number of words in which the vowels are frequently altered, and similar interchange is made also with consonants. These divergencies are somewhat disconcerting and perplexing in trying to form a comparative vocabulary. Take, for instance, the general word for a fly, *lango*, or *rango*; Maoris call it both *rango* and *ngaro*. Now, *ngalo* in Samoan, etc., means “to forget.”

Many changes of consonants distinguish the several dialects of Eastern Polynesia, often marking the difference of tongues. Samoans have softened the Polynesian language in every possible way, and have rejected all harsh sounds, gutturals, and aspirates. They admit no conjunction of consonants, and reject *h*, *k*, and *r*. For *h* they substitute *s* or *f*, and *t* for *k*. Instead of *r* they use the liquid *l*, and *w* is wanting, *v* always supplies its place.

The TAHITIAN language in some respects resembles the Samoan in regard to softness and easy articulation. In it *k* is elided, but *h* is retained, and employed where Samoans use *f* or *s*, and occasionally in place of *m*. The nasal *g*=*ng* is omitted, sometimes *n* is used instead. The letter *r* is profusely employed, but often softened. In some words in which *p* is used by Samoans, Tahitians substitute *n* for *p*, and frequently elide the *n* and *g* of Samoa, evidently preferring the hiatus caused by two similar vowels coming together through the elision of these consonants. *T*, *h*, and *r*, often take the place of *l* of Samoan; *m* is omitted in some words, and the vowel only expressed; and in other words *n* is used instead of *m*; *v* is sometimes employed in place of *f*.

The literal form of words in MARQUESAN, PAUMOTUAN, MANGAREVAN differs very slightly from the Tahitian, though perceptible changes have been made both in the orthography and meaning of words. *H* and *k* are freely employed, generally in place of *f* and *s* of Samoan. In the two former tongues *f* and *h* interchange

[1] In the early translation of the Scriptures, etc., the translators contented themselves by using *w* only, omitting the *h*; but this evidently was a mistake and often misleading; the plan, therefore, has not been followed by later writers.

Digitized by Google

where *f* only is used in Samoan. Paumotuan and Mangarevan retain the nasal *g*=*ng*, but in Marquesan *k* is substituted. Both *l* and *r* are omitted in Marquesan, often causing an awkward hiatus, like that which frequently occurs in Tahitian. A peculiarity in these three tongues is the frequent substitution of *e* for *a*; *a* is the most frequently used vowel in the other Polynesian dialects. Some variations seem to be of an arbitrary character, not governed by any fixed rule, but what Samoans would term a *nanu*, an affected pronunciation. As previously stated, many words are found in these three groups of a foreign origin.

HAWAIIAN orthography corresponds in some degree both with Tahitian and Samoan. Agreement with the latter is pretty general, yet with several deviations. There is a difference in some of the vowels, and frequent transpositions. As regards the consonants, *g*=*ng* is omitted and *n* is used instead; *h* and *k* take the place of *f* in Samoan, which is lacking; *k* is freely used, mostly as a substitute for *t*, which is also wanting except in introduced words; *l* is occasionally employed, but more frequently; *r* takes its place; and *v* is changed to *w*, which also in some words supplies the place of *m*.[1]

The MORIORIS of the Chatham Islands are considered to be a remnant of the autocthones not only of those islands, but also of the early inhabitants of New Zealand. The language now spoken differs slightly from Maori. Many vowels are interchanged in several words, and others are ejected, *t* is often pronounced as *tch* as among some tribes of Tongan admixture.

RAROTONGAN closely corresponds with Maori. There are occasional interchanges of vowels, chiefly with *a* and *e*. Rarotongans reject the aspirate, but have not substituted the sibilant as in Samoan; *f* also has been elided, which mutilates words of general use in Polynesia, and it is not replaced as in Maori by *w* and *wh*; *k* is extensively used, and *l* is changed to *r*, which is the case in several Polynesian dialects. There are diverse provincialisms in the Rarotongan-speaking tribes, chiefly among the natives of the coral islands to the north and west of the Hervey Group.

TONGA, though a neighbouring group to Samoa, has a phonetic differing materially from the Samoan, occasioned by the frequent use of *j* and *k*, and the substitution of *b* for *p*; in some words by the re-duplication of vowels, and the frequent interchange of *o* and *a*. *H* takes the place of *s*, and *j* that of *t*. In some tribes *t* is changed to *ts*, *tz*, or *tch*.

NIUÉAN is an admixture of Samoan and Tongan elements. The same is the case with TOKELAUAN; in the former the Tongan predominates, but the Samoan in the latter.

FIJI, the geographical position of which is on the dividing line between Western and Eastern Polynesia, and between the Melanesian and the Malayo-Polynesian regions, has a language composed of mixed tongues of these races. There are dialectic differences in the several islands of the group; but

[1] The Hawaiian alphabet is the shortest of Polynesian, having only 13 letters.

Digitized by Google

the vernacular of Mbau, the former seat of royalty, approximates nearest to the Samoan, though it is evident that Melanesian peculiarities largely prevail, and also that many words have been adopted from Tonga, with which place Fiji has ever been in close communication. The Fijian orthography possesses *b*, *c*=soft *th*, *d* (often used in place of *t*), a hard *g*, *q*=*ngg*, *v*, *w*, and *y*. *F* is wanting, and substituted by *v*; *r* often supplies the place of *l*, and *w* (as in Maori, etc.), that of *v*; *n* at times instead of *l*. Combined consonants are used, mostly as labials or nasal breathings. These sounds are represented by *mb*, *dr*, *nd*, *nt*, and *c* for *th*. In modern literature, *th* is put for the last mentioned, and *m* is omitted from the *mb* of older orthography.

The ROTUMAN language, like the Fijian, is a compound of several Polynesian dialects, with additions from Melanesian tongues, chiefly from the Caroline and Gilbert Islands; and, in accordance with the usage of Melanesians, final vowels of Polynesian words are often eliminated, and combined consonants are freely employed. The letter *h* is used in place of *f* in words derived from Samoa. Samoan words are much mutilated in Rotuman. The sibilant is retained.

The *Syllables* of Polynesian words are very simple and of easy pronunciation, being composed of a consonant followed by one or two vowels, or formed by vowels only. There are no proper diphthongs, with a few exceptions each vowel is distinctly sounded. When two similar vowels come together there is a slight break or hiatus between. In some cases, particularly in compounded words, two similar vowels falling together are pronounced as a long vowel. Every syllable ends with a vowel. Only in Maori, Fijian, Tongan, and Rotuman, consonants are conjoined. This construction of syllables is general in all the cognate dialects, excepting the tongues of mixed Polynesian and Melanesian origin, where the respective dialects intermingle or are modified by one another.

Root words are mostly dissyllabic, often simply monosyllables. Polynesian, like the German, abounds in compound words, in the construction of which the native tongues have remarkable facility. Polysyllabic words are generally composed of such compound words—an evidence of the simplicity and primitive character of the language. The radicals are mainly nouns or verbs, chiefly the latter. In Samoan, a verb may be converted into a noun by annexing *ga* (nga) to it; *e.g.*, *moe*, to sleep; *moega*, a bed, or sleeping-place. This is the case in many of the eastern islands, as New Zealand and Rarotonga. In Malayan *an* is affixed in forming verbal nouns.

As regards pronunciation, as a general rule the accent is on the penultima; and, in accordance with this rule, when a word is prolonged by the addition of an inflexion, the accent is shifted forward; *e.g.*, *alófa*, love; *alofagía*, beloved. This does not apply to words ending in a long vowel; then the accent is on the ultima; also in speaking of a place or thing at a distance (the demonstrative *na* or *la* is added or understood), as, *i faté*; or *i Tutuilá*, also in mentioning a family name or tribe, as *Sā Tu'í-A'aná*, or in describing abundance, as *niu*, cocoanut, *e niuá*, abounding in cocoanuts.

Digitized by Google

Polynesian is an agglutinate language; inflections are omitted, and their place is supplied by particles prefixed or suffixed. Melanesian and Micronesian tongues are to some extent inflexional. A language of courtesy or deference, so extensively used in Samoa, is employed partially, as an incorporation from Samoa, in some of the other islands, as Rotuma, Tonga, etc.

These Polynesian tongues have a clear, systematic and grammatical form; and an ignorant or clumsy speaker would hardly be tolerated. A synopsis of the grammar will be useful, noticing briefly the several dialectical differences. I have studiously examined these divergencies but can add only the most striking without trespassing on space. A full treatment of the subject would fill a volume. Taking the Samoan as a basis, I shall denote the other dialects by their respective initials, viz., S. Samoan, N. for Niuéan, To. Tongan, F. Fijian, H. Hawaiian, M. Marquesan, Ta. Tahitian, P. Paumotuan, Man. Mangarevan, R. Rarotongan, Mao. Maori, Ro. Rotuman, Tok. Tokelauan, N.G. New Guinea. As the Maori and Rarotongan are much alike, and as a close affinity exists between Tahitian, Marquesan, Paumotuan, and Mangarevan, also in Tongan and Niuéan, and between Samoan and Tokelauan, what is said of the one will generally apply to the other correlative.

The ARTICLE.—The Samoan definite article is *'o le*, singular; in the plural *le* is omitted, *'o* alone is employed, and the same is used before proper names; *e.g.*, *'o le tagata*, the man, *'o tagata*, men; *'o Malietoa*, *'o Savai'i*.[1] *Se* is an indefinite and partitive article (sing.), *ni*, *isi*, (pl.); *si*, *sina*, *nisi*, etc., are also partitives. The plural is mostly denoted by the omission of the article, except in the use of these last-mentioned partitives.

N., *he* (sing.), *e*, *tau*, (pl.); To., *koe*, *he*, *ha*, *a* (sing.), *a*, *e*, *ngahi* (pl.), *ka* (indefinite); F., *na*, *a*; H., *he* (sing.), *na* (pl.), *ka*, *he* (indefinite); M., Ta., Man., *te* (sing.), *e* (pl.); P., *ta* (sing.), *a* (pl.); R., *te* (sing.), *e*, *au* (pl.); Mao., *he*, *te* (sing.), *ko*, *ka*, *nga* (pl.), *e*, *hina* (indefinite); Ro., *se* (sing.), *na* (affix pl.); N.G., wanting.

NOUNS lack proper declensions; particles mark the number, words for "male" or "female" the gender, the neuter is not noted, and prepositions denote case. Prefixed particles, *au*, *tau*, *to'a* are often used to point out numbers. Many nouns are derived from verbs by affixing *nga*, *anga*, *manga*, *sanga*, or *tanga* to the verbal root, mostly the first-mentioned. Many peculiar forms of verbal nouns might be quoted, but they would be of little service as regards comparison of the dialects. Similar changes of verbs to nouns belong also to some of the other dialects, as Rarotongan, Maori, etc. A peculiar method exists in Hawaiian for denoting plurality, such as prefixing the particle *na* to signify a large number, *pae* and *puu* of objects previously mentioned, and *poe* in a restrictive sense. In Motuan of New Guinea, number is generally absent, sometimes expressed by a change in the genitive particle, or by re-duplication to form the plural.

Case in Samoan is indicated by prepositions prefixed. *Nominative* by *'o* broad. In To., N., F., and Mao., *ko*; H., M., Ta., *'o* (as in Samoan), *no*; (pl.) F. and R.,

[1] Also in H., T., M., R., and sometimes in To., Man., Ta., F. and Mao., Ro.

Digitized by Google

etc., *ō*; N.G., expressed by being placed first in a sentence before the predicate. The *Genitive* in Samoan has *o* soft or *a*. No special rule can be given which should be used, though certain nouns take the form of *o*, others of *a*; *o* is the more general, and yet awkward mistakes might be made by using *o* where *a* should be placed. In the other cognate dialects the genitive form varies: N., *a*; To., *ki, ae, o*; F., *na, nei*; H., M., Ta., P., *na, no*; R., Mao., *na, no, ta, to, a, o*; Ro., *on, ne*; N.G., *na, dia,* or *ena* (his) suffixed. The Samoan *Dative* is: *i, ia, iate* (personal), to; *mo* and *ma*, for; N., To., F., H., R., and Mao., *ki*, with variations, as To., *ke, he*; N., *kia*, etc.; R., *i*; Mao., *ko*; Ro., *ko*; N.G., placed at the end of a sentence. The Accusative form much resembles the dative, or by omitting the particle. In N.G., it follows the nominative but precedes the predicate. The *Ablative* in Samoan is formed by the addition of *ai, e, mai, nai* (from), *i* (into), *e* (by). In other dialects a similar form is employed, as N., *ki, tahe, mai*; To., *ae, e, i, ki, ita*; F., *e, vei*; H., M., Ta., *e, i, ma*; R., *e, ki, ma*; Mao., *e, i, ma, na*; Ro., *se, mai*; N.G., *laia* (suffix) from; *e, amo,* by, etc. The vocative in Samoa takes *ē* as an affix particle. In To., H., Mao., and Ro. the particle is prefixed, and in Ta. and P. it is placed either as a prefix or suffix; N. is *nae* (affix), and Ro., *ko* (prefix), N.G., *e, o* (suffix), sometimes as a prefix.

ADJECTIVES, as a general rule, follow the noun, as *le tangata lelei*, a good man, except in cases where a verbal significance is given to the adjective, as, *E lelei le tangata*, The man is good. Adjectives are either primitive or formed from nouns and verbs, as *lelei*, good; *'ele'elea*, dirty, from *'ele'ele*, dirt; *fa'alongo*, obedient, from *fa'alonga*, to hear; or by a re-duplication of the noun, as *fatufatua*, stony, from *fatu*, a stone; *apulupulu*, sticky, from *apulu*, to stick. Many adjectives are formed by prefixing the causative particle *fa'a* to some nouns, verbs, and other adjectives. A list of some adjectives of common use will be found in the Appendix. In Motu, N.G., nouns, verbs, and adverbs are used as adjectives, and known by their position in a sentence. Adjectives are also formed from verbs by suffixing *ka*.

DEGREES OF COMPARISON are expressed in Samoan by words implying contrast, as, *E lelei lenei, e leanga lena*, this is good, that is bad; *i.e.* this is better than that; and *e sili ona lelei*, best. The superlative is formed by adding certain adverbs or adjectives, as *sili*, superior, *silisili ese*, supreme; also *a'ia'i, matuā, nauā*, etc. This form prevails generally throughout the Polynesian dialects. Tongans express the superlative by affixing *aubito*. In Hawaiian comparison is expressed by adding another adjective or an adverb, and the superlative is formed by prefixing the article *ke*. In Rotuman *pau* signifies superlative. In Motu, New Guinea, comparison is made as in Samoan, the superlative by adding, *herea*, exceedingly. In Samoa the particle *e* is the usual prefix to adjectives and numerals; sometimes the verbal particles *ua, na, sa* are used when the adjective takes a verbal form. Of the other dialects—N., To., and F., *e*; H., *e, he*; Ta., *e*; R., *e*; Mao., *a*; Ro., *se*.

A list of units of the several dialects is given at the close of the Appendix. The greatest similarity in the various dialects will be found in their numerals and

Digitized by Google

pronouns. Certain things have their own peculiar particles and adjuncts,—space will not admit of these being specified,—persons generally by the prefix *to'a* in Samoan, as *to'asefulu*, ten persons; N., To., M., R., and Mao., *toko*; H., *koo*; Ta., *too*; N.G., *ra, ta, ha, la.*

PRONOUNS.—The several dialects have a dual as well as a plural number, and a variation to denote the inclusion or exclusion of the persons addressed. The dual is formed by the affix *ua* (from *lua*, two); the plural by the affix *tou* (from *tolu*, three). The first person dual and plural is denoted by a prefix *ta* (inclusive) and *ma* (exclusive). The second person by the prefix *ou*, and the third by *la*. See Appendix.

Case is denoted by the use of particles, similar to those used in the declension of nouns, and they are also marked by an additional particle *te* used before verbs in the future, or with oblique cases of pronouns. It has no other quality than that of euphony. The pronoun porperly precedes the verb, though in some instances it may follow the predicate, as, *Na fai mai o ia*, or, *Ua faapea mai o ia*, He said; *lit.* Said he. Samoans have a peculiar change in the 1st pers. sing. *ta*; dative and accus. *ita* (or nom. when used after the predicate), or as a re-duplicate for emphasis, as in the familiar phrase, *Tāīlo lava ita*, As for me, I don't know. The Samoan *nominative* is formed by the prefix *'o*; N., To., F., *ko*; H., *o, a*; Ta., *o*; R., *ko, a, o, oki*; Mao., *a*; Ro., *ka, ko*; N.G., wanting. The *Genitive*: S., *o*[1] and *a*; N., To., *he, ha*; F., *ni*; H., *ko, ka*; Ta., *na, no, a, o*; R., *na, no, ta, to*; Mao., *ta, a, no*; Ro., *ne, on.* The *Dative*: S., *id*, or *ia te*; N., *kia*; To., *ke, ki, ku, kiate, iate*[2]; F., *vei*; H., *no, na, i*; Ta., *ia.*; R., *kia*; Mao., *ka*; Ro., *se.* The *Accusative* in Samoan is generally formed by the particles *ia te*, or they are omitted; N., To., *kia*; F., *ko*; H., *ki, i*; Ta., R., *ia*; Mao., *ki*; Ro., *sa, se.* The *Ablative*: S., *e*, by; *mo, ma*, for; *mai, nai*, from—which take a second preposition as, *mai ia te ia*, from him; N., *a, e*; To., *e, i, kia, moo*; F., *ko*; H., *e, me, mai*; T., *i, mai*; R., *ki, ko, a, i, ei*; Mao., *ki, nó, o, a*; Ro., *e, i.* The Samoan *Vocative* is *e* affixed; N., To., *nae*; F., *i* (prefix); H., *e* (prefix); T., R., Mao., *e* (prefix or affix); Ro., *ko* (prefix). Motu, New Guinea, pronouns have person and number, but no case.

Possessive Pronouns in Samoan are distinguished by the adjunct of the article *le* (or *l* only) in the singular of the 1st person, and changed to *lo* and *la* in the 2nd and 3rd person. In the plural the article is omitted.[3] My, mine: S., *lo'u, la'u*; N., *hau*; To., *haku*; F., *qu, qo* (affix); H., *ko'u, ka'u, na'u, no'u*; Ta., *to'u*; R., *taku, toku*; Mao., *naku, nakaku, moku, oku*; Ro., *oto*; N.G., *lauegu.* Thy, thine: S., *lou, lau*; N., *hau*; To., *to, te, ho*; F., *mu* (affix); H., *ko, kou*; Ta., *to*; R., *naau, taau, toou*; Mao., *tau, tahau, taku, tou, tohou, nou*; Ro., *ou*; N.G., *oiemu.* His: S., *lona,*

[1] This is a soft *o*, and not like the *'o* of the nom. which has an aspirate or catch.

[2] Tongans often abbreviate the pronoun in the genitive and dative; as *he e mau* for *he mautolu; kinautolu* for *kiate lautolu.* The abridgments are *mau, nau, ndua.* Samoans shorten the 2nd pers. pl. nom. to *tou* for *outou.*

[3] *Na* is sometimes used as a personal pronoun in the nom. of the 3rd pers. sing., as *Ua na fai mai*, he said or says; but it is the general form of the 3rd pers. sing. as an affix to the possessive, *lona* or *lana.* When a plurality of things is indicated the *l* (as in the article) is elided, as *lona fale*, his house; *ona fale*, his houses; *lana mea*, his thing; *ana mea*, his things.

Digitized by Google

lana; N., *hona, hana*; To., *hono*; F., *na* (affix); H., *kana, nona*; Ta., *nona, tona, tana*; R., *tona, nona, tana, nana*; M., *tona, nona, tana, nana, nahana*; Ro., *on*; N.G., *iena*. Our: noted by prefix particles to the personal pronoun; S., *lo, la*, as *lo tatou*; N., To., *ha, ko*; F., *keimami* (affix); H., *ka*; Ta., *ta*; R. and Mao., *ta, to*; Ro., *oto*; N.G., *ai emai* (exclusive), *ita eda* (inclusive). Your: S., *lo, la*; N., *ha*; To., *to, te, ha*; F., *nomudou*; H., *ka, ko, na, no*; Ta., R., Mao., *ta, to, a, o*; Ro., *omus*; N.G., *emui, umui*. Their: S., *la, lo*; N., *ha, ho*; To., *ho*; F., *nodra*; H., *ka, ko*; Ta., *ta, to*; R., *na, no, ta, to*; Mao., *ta, to*; Ro., *ou*; N.G., *idia, edia*.[1]

The Samoan *Demonstrative Pronoun* is represented by *lenei*, this; *lea, lelā*, or *lenā*, that, sing.; and plural *ia* or *nei*, these; *na* or *la*, those. *Sea, sisi*, and *sinei*, are used in a familiar or diminutive sense. So in N., *a enei*, this; *a ena*, that; To., *ko enei, heni*, this; *eni, ni*, these; *hena teu*, that; F., *o qo*, this; *na*, that; H., *eia*, this; *la, leila*, that; *kena* (personal); Ta., *teie, teicnei*, this; *tena, tenana*, that; R., *nei, teia, teianei*, this; *tena, tera, reira, teina, na, tenana*, that; Mao., *tenei, nei*, this; *tena, tera*, that; *ena, era*, those; Ro., *teisi, sini*, this; *teii*, those; *ta*, that; N.G., *ina, ini*, this; *ena*, that (near); *una, unu*, that (distant).

In Samoan the *Relative Pronouns* are often omitted, but understood; they are, *o ai*, who; *'o le*, who or that, sing.; the plural is expressed by dropping the *l*; *ai* is also used as a relative reflective. N., *koe*; To., *oku*, who; *teu*, that, *ai* (reflective); F., *ko, koya*; H., *wai*; Ta., *vai*; R., *ko tei*; *ki tie*; Mao., *wai, nana*; Ro., *ka sei, ta*; N.G., *enai, unai*.

Indefinite Pronouns are: S., *ni*, some, any; *nisi, isi*, some others; *nai*, some few; N., *falu*; To., *niihi*; F., *so*; H., *kekahi*; Ta., *tetahi*; R., *tetai*; Mao., *ketahi, hinu, tokohinu*; Ro., *vil*; N.G., *haida, taina, idia ta*.

Interrogative Pronouns: S., *'o ai?* who?[2] *O le ā?* what? (sing.); the plural drops the article *le*; *Se ā?* what? (indef., sing.); *ni ā?* (plural); *le fea? se fea?* which? Who?: N., *ko e, na a?* To., *ko hai, koai? na a? na ha?* F., *o thei, ko?* H., *ko wai?* Ta., *ovai? kovai? na vai?* R., *koai?* Mao., *ko wai?* Ro., *ka sei?* N.G., *daika? daidia?* What?: N., *ke he? po ke heingoa?* (emphatic); To., *eha? oha? koeha?* F., *thava? ne?* H., *aha? hea?* Ta., *aha? eaha? nei?* R., *eaa?* Mao., *aha, ne?* Ro., *ka tes? ka tea?* N.G., *dahaka?* Which?: N., To., *koe . . . fe?* F., *a thava?* H., *hea?* Ta., *tehea?* R., *teea?* Mao., *tehea?* Ro., *ka sei? ka tei?* N.G., *edana?*[3]

Verbs in Polynesian would be more clearly defined by Oriental conjugations than by European. *Number* is often denoted by a re-duplication of the verb or a syllable. The plural form is used with nouns of multitude. Verbs generally

[1] The following terminal particles also express the genitive of nouns of relationship; and this accords with similar forms in many Melanesian dialects:—

Fijian,	1st pers. sing., *qu, qo*;		2nd, *mu*;	3rd, *na*.
New Guinea,	„	„ *gu*;	„ *mu*;	„ *na*.
	„	plu., *mai* (inclu.);	„ *mui*;	„ *dia*.
		da (inclu.).		

[2] In asking the name of a person *'o ai* is used, as *'O ai lou ingoa?* Who is your name? The same form is employed in the other cognates.

[3] An affix particle *ea* denotes interrogation generally.

Digitized by Google

agree with the nominative. If the objective is the main subject of the predicate, the verb must agree with it. The usual prefatory particle in Samoan is *'ua*; N., *kua*; To., *bea, kuo*; F., *ma*; H., *wa, ua*; R., and Mao., *na, kua*; Ro., *sa*; N.G., none special. Tongans employ very freely the particle *bea* at the beginning of sentences, which is somewhat similar to Samoan *ona*, and may be rendered by "then." In New Zealand and Rarotonga *na* is often used to call attention at the commencement of a sentence; in Samoa it becomes *'a*, but not of frequent use except in public speaking. *Ona*, in Samoan, before the predicate, and followed by *ai lea* after the verb, properly expresses consequence or result. Tahitians affix an expletive *ra* to most verbs and nouns. This is followed to a limited extent in Rarotongan and Marquesan. In Hawai'i and the eastern islands of Samoa *ra* is changed to *la*.

Moods and Tenses are formed by the addition of particles, as prefixes or suffixes, which, although they for the most part possess no separate meaning, serve the purpose of distinguishing action and time. There are also directive particles which follow the verb and denote its application, as *mai*, towards, and *atu*, from the speaker; *ane*, directive along or aside; *a'e*, directive upward, and *ifo*, downward; *ese*, away from. These directive particles exist in the several dialects, with certain modifications; N., To., *mai, atu, hake, hifo*; H., *mai, aku, ae, a'e, iho*; Ta., *mai, atu, ae, ake*; R., *mai, atu, ana, a'e, ake, iho*; Mao., *mai, atu, ana, a'e* or *ake, iho*. In Motu, N.G., the suffixes are compounded with the verb: *dae, isi*, upward; *dobi*, downwards; *oho*, away; *ohu*, around.

Verbs are active, passive, or neuter, each expressed by its governing particle, Except by occupying considerable space their various forms and deviations cannot now be particularly specified. It may be sufficient to give the passive form of each dialect. Samoan *passive* particles or suffixes to the verb are *a, na, ina, ia, sia, tia*, with other changes of the consonant; N., *ai, nia*; To., *o* (prefix), *tia* (suffix); F., *tai*; H., *ia hia*; Ta., *ia, aia, hia, raa*; R., *ia, hia, tia, anga*; Mao., *ia, hia, tia*; Ro., *aki*; N.G., by adding the personal particle, as *gu*, 1st person sing., and so forth; sometimes *lia* or *tia*.

The Samoan *Infinitive* takes *e* before the verb, and this is the rule generally throughout Eastern Polynesia, excepting N., and To., *ke*; R., *o, ke, ite*; N.G., *ane*. The *Reciprocal* (as Hithpael in Hebrew) is formed by *fe* prefix and *a'i*, etc., suffix to the verb. Difference of action is represented by slight changes in the suffix, and the addition of a consonant to the affix *a'i* adds emphasis or intensity to the predicate. N., To., *fe . . . . aki*; F., *vei*; H., (none); Ta., *iho*; R., *uaorai*; Mao., (none); Ro., *hoi . . . . iung*, etc.; N.G., *he . . . . heheni*. The *Causative* (as *Hiphil* of Hebrew) is expressed by a prefix *fa'a* to the verb. It is also used with nouns, adjectives, and adverbs, giving them a verbal form of causation. *Fa'a* also changes intransitive to transitive verbs, as the prefix *ber* in Malayan. It has also other important significations, but is chiefly used to signify causation.[1] N., To., *faka*

[1] *Vide* Pratt's *Samoan Grammar and Dictionary.*

Digitized by Google

faa; F., *vaka*; H., *haa, hoo*; Ta., *faa, haa*; R., *aka*; Mao., *whaka, wha*; Ro., *aa, fa, fak*; N.G.. *ha, ahe.* The *Subjunctive* is denoted by several particles prefixed, as *ina ia, ina ua, ona ua*; or *a, pe, pe afai, afai, a ne*; N., *kaeke, ane*; To., *kabau*; F., *kavaka*; H., *me, mehe*; Ta., *ahira, ahiri*; R., *me, naringa, angairi, i akono, mehe*; Mao., *me, me he, ki*; Ro., *kepoi*; N.G., *bema, baine.* The *Potential,* expressed by prefixes: S., *ma, mafai*; N., *ka*; To., *faa, kane*; F., *ko sa*; H., *ka*; Ta., *é ma*; R., *hei, me, penei*; Mao., *hei, me, ahei, penei*; Ro., *mo, vahia.* The Samoan *Imperative* has certain prefixes and affixes which express also attitude, as *ia, inā* (pref.) with *ia* (suff.), commanding; *aua*, forbidding; *se'i*, entreating; N., *a* (affix); To., *ke, tau*; F., *me, ia*; H., *e*; *mai* and *ole*, forbidding; Ta., *a, ia*; *mai* and *ore*, forbidding; R., *ka, kia*; Mao., *kia, hia*; *kore*, forbidding; Ro., *au, la*; N.G., *ba, a.*

Another peculiar form of the verb in Samoa is the *Intensive* (like *Piel* in Hebrew). It is expressed by a re-duplication of the verb. Continued action is denoted by prefixing *tau* or affixing *a'ina* to the verb. Other cognate dialects have this mood.

Tenses in Samoan have various modifications. It will not be necessary to notice the several special conditions, but simply to give what may be termed natural Tenses, or points of time. The *Present Tense* is expressed by the prefixes *ua, e,* and *o loo.* This last is mostly used as a participle. N., *kua*; To., *oku*; F., *a sa*; H., *ua, e, i, ana*; Ta., *e*; R., *e*; Mao., *e* (as a prefix or suffix); Ro., *e, ne*; N.G., *mu, mua* (affix). The *Past Tense* in Samoan is represented by *na* or *sa*; N., *ne, tuai* (emphatic); To., *na, nae, ne*; F., *ka, sa*; H., *a, na, nai, ia*; Ta., *ia, i*; R., *kua, ka, na, ne, no*; *i, ia* (suffix); Mao., *a, ka, na, no*; Ro., *na, voihia* (pref.) with *ung* (affix); N.G., *va* (affix). The *Future* in Samoan is marked by the prefix *e*; N., *ti, to*; To., *he, e*; F., *ena, sa*; H., *e, ku, ua*; Ta., R., Mao., *e*; Ro., *se*; N.G., *ba, baina, baine,* etc., to suit the pronoun. The *Perfect Tense* prefix is: S., *ua, ina ua*; N., *kua, tuai*; To., *kuo*; *a* (affix); F., *sa, sa qai*; H., *wa*; Ta., *ua, e*; R., *kua*; Mao., *kua*; Ro., *ne*; N.G., *vada* (prefix), *vaitana* (suffix).

In Samoan, and other cognates to a certain extent, a peculiar particle, *te,* is used for euphony between the pronoun and verb in present and future tenses.

I must now conclude this paper with comparing a few adverbs, prepositions, and conjunctions, viz.:—

ADVERBS.—Here: S., *unei*; N., *i hinei, hanei*; To., *i heni*; F., *kikei*; H., *ianei, nei*; Ta., *onei, o i nei*; R., *teia, tetai, nei, konei*; Mao., *konei, nei*; Ro., *teisi, mea*; N.G., *iniseni.* There: S., *i'ita, inā*; N., *ki ai*; To., *ki ai*; F., *ki na*; H., *la, laila, aianei*; Ta., *reira, i tera*; R., *reira, tena*; Mao., *rerei, reira*; Ro., *e tau*; N.G., *unuseni.* Where: S., *'o fea, i fea*; N., *ko fe*; To., *fe, koeha*; F., *ni ea*; H., *te hea*; Ta., *i hea, teihea*; R., *teiea*; Mao., *kohea, kei hea, tea*; Ro., *sini, e tau*; N.G., *edeseni.* When: S., *afea* (present and future), *anafea* (past); N., *a fe*; To., *i he, fe, bea*; F., *ia ni*; H., *a, hea*; Ta., *i*; R., *kia*; Mao., *ahea, ano*; Ro., *avas*; N.G., *edana, negai.* Then: S., *ona* (prefix with *ai lea* affix); N., *ati*; To., *bea*; F., *ni, ni na, e na*; H., *laila*; Ta., *ati*; R., *ei reira*; Mao., *tanei, ati*; Ro., *kota*; N.G., *unai negana.* Yes: S., *e, ioe*; N., *e*; To., *io*; F., *io*; H., *oia, ae*; Ta. *oia, ae*; R.,

Digitized by Google

a, o, ae, koia; Mao., *ea, koia, ina, ana*[1]; Ro., *o*; N.G., *io, oibi.* No: S., *leai, i'ai*; N., *nakai*; To., *ikai, ore*; F., *senga*; H., *ole*; Ta., *aita, ore*; R., *tikai, kare, kore*; Mao., *te., hore, kahore, kao, kanapa, kihai*; Ro., *eaki, ingke*; N.G., *lasi.*

PREPOSITIONS.—Of: S., *o, a*; N., *ha, he*; To., *a, o, i*; F., *ko*; H., *ka, ko, na, no, a, o*; Ta., *na, no, a, o*; R., *na, no, a, o*; Mao., *na, no, a, o, ki*; Ro., *ne, on,* From: S., *mai*; N., *mai*; To., *mei*; F., *mai*; H., *mai*; Ta., *o, e, mai*; R., *mai, mei*; Mao., *i, na, no*; Ro., *e*; N.G., *amo.* For: S., *mo, ma*; N., *ha*; To., *maa*; F., *na*; H., *me, na, no*; Ta., *i, na*; R., *na, no*; Mao., *ma, mo*; R., *ne*; N.G., *egu, agu, ema, emu.* With: S., *ma*; N., *mo*; To., *ka, i, mo, moe*; F., *vata*; H., *i, me*; Ta., *ma, mo, na, no*; R., *ki, i*; Mao., *me, ki*; Ro., *mai*; N.G., *ida.* In: S., *i*; N., *i*; To., *i, ki*; F., *e, mai*; H., *i*; Ta., *i, tei*; R., *i, ei*; Mao., *i*; Ro., *e*; N.G., *vareai.* To: S., *i, ia*; N., *ki*; To., *ki*; F., *ki*; H., *i, ki, na*; Ta., *i, ia*; R., *ki, i, ko*; Mao., *ki, ko*; Ro., *se*; N.G., *dekena.* Above: S., *i lunga*; N., *i lunga*; To., *olunga*; F., *maithake*; H., *luna*; Ta., *nia, nua*; R., *i runga, nunga*; Mao., *ki runga*; Ro., *rere*; N.G., *atai.* Below: S., *i lalo*; N., *i lalo*; To., *ki lalo*; F., *lako*; H., *lalo*; F., *lako*; Ta., *i raro*; R., *ki raro*; Mao., *ki raro*; Ro., *lopo*; N.G., *henu.* Behind: S., *i tua*; N., *i tua, mole*; To., *i, mui*; F., *sivi*; H., *i kua, muli*; Ta., *mamui*; R., *i muri*; Mao., *i tua, inonira*; Ro., *fauu*; N.G., *murina.* Before: S., *i luma*; N., *i mua*; To., *mua*; F., *kiliu*; H., *mua*; Ta., *mua*; R., *mua*; Mao., *i mua, keiwha*; Ro., *mua*; N.G., *vairanai.*

CONJUNCTIONS.—And: S., *ma*; N., *mo*; To., *mei, ma,*[2] *mo, mu*; F., *kei*; H., *ma, ame*; Ta., *o, ma*[2]; R., *e, ma, mei*; Mao., *he, me, ma*[2]; Ro., *ma*; N.G., *mai, bona.*[2] But: S., *'a, faitai;* N., *ka*; To., *ka, kane*; F., *ia*; H., *a*; Ta., *area*; R., *kareka*; Mao., *he, a, ia, otira*; Ro., *mane*; N.G., *ā.* Also: S., *ma, fo'i*; N., *foki*; To., *foki*; F., *talega*; H., *hoi*; Ta., *hoi*; R., *oki*; Mao., *hoki*; Ro., *tapeima*; N.G., *daṅu.* Although: S., *e ui ina*; N., *kaeke, fano*; To., *ne ongo, kabou*; F., *kevaka*; Ta., *ia*; R., *e kia*; Mao., *ahakoa*; Ro., *mane*; N.G., *enabe.* Because: S., *auā*; N., *ha, nukua*; To., *koeuhi*; F., *ni, ai*; H., *no ka mea*; Ta., *no te mea*; R., *no*; Mao., *heoi, no te mea*; Ro., *ne au*; N.G., *madi be.* Therefore: S., *'o le mea lea*; N., *ati, honei*; To., *koia*; F., *o koya*; Ta., *teie, nei*; R., *teianei*; Mao., *mo reira, koia*; Ro., *tapei*; N.G., *inai, badina binai.* If: S., *afai, ana* (past); N., *kaeke, ane*; To., *kabou*; F., *kevaka*; Ta., *e, iā*; R., *e*; Mao., *me, kapatau, ki te mea*; Ro., *kepoi*; N.G., *bema* (past), *baine* (future).

It will be seen from the foregoing synopsis of a comparative grammar of the Polynesian languages that there is a close affinity and agreement between the several dialects of these people, spread over a very extensive portion of the Pacific. Diversities appear in many particulars, but no more numerous nor wider than are found in the provincialisms of European countries where civilisation and refinement abound. All point distinctly to a common origin. With the exception of New Guinea, Fiji, and Rotuma, I have not introduced any of the manifold

[1] *Koia* and *na* in Maori and Rarotongan also express approval, as *'o ia*, and *'o lea* in Samoan.

[2] Used chiefly in connecting numerals, pronouns, and proper names.

Digitized by Google

tongues of Western Polynesia. These may be superadded at some future time. Hence I refer to the languages treated as Polynesian, and not as Indo-nesian. Among the Melanesian and Micronesian languages will be found a large percentage of Polynesian words, more or less altered to suit the genius of these tongues abounding in consonants, double consonants, and gutturals. Like the Polynesian, they are affected by the phonesis and vocables of neighbouring islands. This is quite natural, and bears some comparison with the languages of Piedmont and the cantons of Switzerland, and other European countries.

In conclusion allow me to add my hope that this slight effort of mine will stimulate and help others to publish their knowledge and acquisitions, for the purpose of settling some useful comparisons, and to arrive at a more satisfactory conclusion. I have cautiously abstained from putting forth any theory founded upon mere conjecture, or weak premises, and I earnestly solicit close and searching investigation from all available sources; and that the facts and evidences obtained may be placed before competent philologues and ethnologists.

Digitized by Google

APPENDIX.

Comparative Vocabulary of Polynesian Words.

Of the Polynesian Dialects here mentioned it should be remembered that a large number of natives of other islands, not noticed here, speak the same languages as these given under the names of Tahitian, Rarotongan and Samoan; for instance:—

Tahitian is spoken by the peoples of the Society, Georgian, and Austral Groups, and also by the natives of the neighbouring isolated islands in the north.

Rarotongan is the language of the people of the Hervey Group, or Cook's Islands, also of the widely-scattered atoll islands of Penrhyn, Manahiki, Raka-anga, Pukapuka, etc., with some slight differences.

Samoa, or Navigator's Islands: the refined language of Samoa is also the tongue of the people of the Ellice Islands and the Union Group, with some slight modifications and variations.

Malayan is spoken throughout the Malayan Archipelago, with more or less purity. I have a list of some 700 Samoan words connected with Malayan roots, and bearing evidence that the Eastern Polynesians left the Malayan regions prior to the Arabian invasion and introduction of Arabic additions to the Malayan tongue.

Digitized by Google

COMPARATIVE VOCABULARY OF

	Sun	*Moon*	*Heavens*	*Star*
1. *English*				
2. Malayan	Mata-ari, Lasi	Bulan, Fāsina	Langit	Bintang, Fatui
3. Samoan	La	Māsina	Langi	Fetū
4. Niuéan	La	Mahina	Langi	Fetū
5. Tongan	La'a	Mahina	Langi	Fetu'u
6. Fijian	Singa	Vula	Lomalangi	Kālokālo
7. Hawaiian	La, Ra	Mahina, Malama	Lani	Hokū
8. Marquesan	A, Aomati	Mahina, Meama	Ahi	Fetū, Hetū
9. Tahitian	Ra, Mahana	Marama	Ra'i	Feti'a, Fetu
10. Paumotuan	Hana	Kavake	Rangi	Hetu
11. Mangarevan	Ra	Maina, Marama	Rangi	Etu
12. Rarotongan	Ra	Marama, Ahoroa	Rangi	Etu
13. Maori	Ra, Komaru	Mahina, Marama	Rangi, Raki	Whetu
14. Rotuman	Asta	Hula	Langi	Hefu
15. Tokelauan	La	Masina	Langi	Fetū
16. Motu	Dina	Hua	Guba	Hisiu
17. Malagasy	Màsoàndro[1]	Volana	Lanitra	Kintana

[1] "O" is pronounced as "u" in Madagascar,

	Light	*Darkness*	*Heat*	*Cold*
1. *English*				
2. Malayan	Tamaraina, Trang	Galap, Klam	Kā-pānas-an	Dingin
3. Samoan	Malamalama	Pouliuli	Vevela	Ma'alili
4. Niuéan	Ma'ama	Pouli	Mafana	Makalili
5. Tongan	Māma	Bouli	Mafana, Vevela	Mokojia
6. Fijian	Rarama	Butobuto	Katakata	Liliua
7. Hawaiian	Malamalama, Ao	Pouri, Poeleele	Vela, Vera	Anu, Hau
8. Marquesan	Maama, Ao	Potana	Vea	Anu
9. Tahitian	Maramarama	Poiri	Mahanahana	Maariri
10. Paumotuan	Marakorako	Potangotango	Veravera	Makariri, Anuanu
11. Mangarevan	Marama	Pouri	Hana, Vera	Makariri
12. Rarotongan	Mārama	Poiri	Veravera, Pukakā	Anu
13. Maori	Ao, Marama	Pouri	Wera	Makariri, Matoke
14. Rotuman	Taf	Maksulu	Pumahan, Sun	Matit
15. Tokelauan	Ao	Po	Vevela	Ma'alili
16. Motu	Diari	Dibura	Siahu	Keru
17. Malagasy	Hazavana	Aisina	Halanana	Hātsiaka

Digitized by Google

POLYNESIAN WORDS.

1. *Cloud* ...	*Rain*	*Lightning*	*Thunder*	*Wind.*
2. Awan ...	Hujan, Uan ...	Kilat	Guruh	Angin.
3. Ao	Uă	Uila	Faititili	Matangi.
4. Aho	Uha	Uhila	Paku-langi...	Matangi.
5. Ao	Uha	Uhila	Faijijili, Mana	Matangi.
6. O, Loaloa	Utha	Liva	Kurukuru	Thangi.
7. Ao	Uă	Uwila, Uila ...	Hekili	Makani.
8. Ao	Uă	Uira	Hatiitii	Matani, Metaki.
9. Ata	Uă	Uira	Patiri, Haruru	Mata'i.
10. Paku	Papape	Koviri	Fatitiri	Matangi.
11. Ao	Uă	Uira	Atutiri	Matangi.
12. Tumurangi...	Uă	Uira	Mangungu	Matangi.
13. Kapua, Au	Uă	Uira	Whatitiri, whaitiri	Matangi, Hau.
14. Aoga	Usa....	Mere	Too....	Langi.
15. Ao	Uă	Uila	Faititili	Matangi.
16. Ori, Dagadaga	Mēdu	Kevaru	Guba rahua	Lāi.
17. Rahona	Ranarana	Helatra	Kotrokorana ..	Rivotra.

for which it has evidently been substituted.

1. *Day*.... ...	*Night*	*Fire*	*Land*	*Mountain.*
2. Ari, Aoa aoa	Mālam, Bungi	Api	Tanah	Gūnong.
3. Ao	Po	Afi	Fanua	Maunga.
4. Aho.... ...	Po	Afi	Fonua	Mounga.
5. Aho.... ...	Bo	Afi	Fonua	Mounga.
6. Singa	Bongi	Buka	Vanua	Ulu-ni-vanua.
7. Ao, Laokoa....	Po	Ahi....	Aina, Honua	Mouna.
8. Ao	Po	Ahi....	Fenua, Henua ...	Mouna.
9. Ao, Mahana	Rui....	Ahi....	Fenua	Mau'a.
10. Aku, Auina	Ruki	Neki, Korure ...	Fenua	Mahunga.
11. Ao	Po	Ahi	Nuku, Enua	Mānga, Mou.
12. Ao	Po	A'i	Enua	Maunga.
13. Ao, Ra ...	Po	Ahi, Kanaku, Kapura	Whenua	Maunga, Mounga.
14. Ran	Pongi	Rahi	Hanua	Solo.
15. Ao	Po	Afi	Fenua	Maunga.
16. Dina ...	Boi, Hanuaboi	Lāhi	Tano-bada....	Ororo.
17. Andro	Alina	Afo....	Tany	Tendrombohitra.

Digitized by Google

COMPARATIVE VOCABULARY OF

	Stone	*Sand*	*Sea*	*Water*
1. *English*	*Stone*	*Sand*	*Sea*	*Water*
2. Malayan	Batu	Pāsir	Tāsek, Tahi	Ayer, Wai
3. Samoan	Ma'a, Fatu	Oneone	Sami, Moīna, Ta'i	Vai
4. Niuéan	Maka	Oneone	Tahi	Vai
5. Tongan	Maka	Oneone	Tahi, Moāna	Vai
6. Fijian	Vatu	Nukunuku	Wa:tui, Tathi	Wai
7. Hawaiian	Pohaku	One	Kai	Wai
8. Marquesan	Kea	Oneone	Tai, Moāna	Vai
9. Tahitian	Ofa'i, Toa	One	Miti, Tai, Moana	Vai, Pape
10. Paumotuan	Konao, Pakaketa	Ngaere	Moāna	Komo
11. Mangarevan	Poatu	One, Oneone	Moāna	Vai
12. Rarotongan	Toka, Fatu	One	Tai, Moāna	Vai
13. Maori	Kamaka, Toka, Powhatu.	Onepū	Moāna, Tai	Wai
14. Rotuman	Hof	Fanfan	Tari, Sosi	Voi, Tanu, Tonu
15. Tokelauan	Fatu	Oneone	Moāna	Vai
16. Motu	Nadi	Raria	Davara	Ranu
17. Malagasy	Vato	Fasika	Ranomasina, Riaka	Rano

	Mother	*Brother*	*Sister*	*Chief*
1. *English*	*Mother*	*Brother*	*Sister*	*Chief*
2. Malayan	Ina, Mentua	Sudāra, Abang (eldest)	Sudāra perampuan, Abang (eldest)	Damang, Tuan
3. Samoan	Tinā	Uso (brothers) Tuangane (sisters)	Uso (sisters) Tuahafine (brothers)	Ali'i, Tui
4. Niuéan	Matua-fifine	Matakainanga (brothers) Tungane (sisters)	Mahakitanga (brothers) Matakainanga (sisters)	Iki, Patuiki
5. Tongan	Fa'e	Tehina (brothers) Tuongaane (sisters)	Tuofefine (brothers) Tehina (sisters)	Eiki, Tui
6. Fijian	Tinā	Tuakane (brothers) Ngane (sisters)	Taiina (brothers) Tuakana (sisters)	Turanga
7. Hawaiian	Makua hine	Hoahanau kane (brothers) Kunane (sisters)	Kaiku-wahine (brothers) Hoahanau (sisters)	Ari'i
8. Marquesan	Kui	Tusana (brothers) Tuakane (sisters)	Tuehine (brothers) Tukana (sisters)	Hakaiki
9. Tahitian	Metua vahine	Taeae (brothers) Tuaana (sisters)	Tuahine (brothers) Tuaana (sisters)	Ali'i, Fatu
10. Paumotuan	Makua hine	Deina (brothers) Tungane (sisters)	Tuahine (brothers) Deina (sisters)	Ariki, Pupuariki
11. Mangarevan	Kui	Tuakana (brothers) Tungane (sisters)	Tuhine (brothers) Teina (sisters)	Ariki
12. Rarotongan	Metua vainé	Teina, Taeake (brothers) Tungane (sisters)	Tuaine (brothers) Teina (sisters)	Ariki
13. Maori	Matua wahine, Waea	Teina (brothers) Tungane (sisters)	Tuahine (brothers) Teina, Tuakane (sisters)	Ariki
14. Rotuman	Oihoni	Sosinga (brothers) Sangoeveni (sisters)	Sanghoiena (brothers) Sasinga (sisters)	Ngangata, Pure'aki
15. Tokelauan	Matua	Teina	Tuafafine (brothers)	Aliki
16. Motu	Sinana	Kakana (elder) Tadina (younger)	Taihuna (brothers) Tadina (sisters)	Lohia, Lohiabada (high)
17. Malagasy	Reny	Rahalahy (brothers) Anabahy (sisters)	Anabavy (brothers) Rahavavy (sisters)	Mpanjaka, Andriana (royal)

Digitized by Google

POLYNESIAN WORDS.

	Man	*Woman*	*Boy*	*Girl*	*Father.*
1.					
2.	Orang láki-láki	Perampuan, Bini (wife)	Anak-lákiláki	Anak perampuan	Bapa, Rama.
3.	Tangata	Fafine	Tămă	Teine	Tamā.
4.	Tangata	Fifine	Tamă	Tarră-fine	Mātua.
5.	Tangata	Fefine	Tamă	Ta'a-hine	Tamai.
6.	Tamata	Alewa	Ngone tangana	Ngone-alewa	Tamā.
7.	Kanaka	Wahine	Kamă, Keika kane	Kaikama hine	Makua kane.
8.	Enata	Vehine	Mahai	Pahoe	Motua.
9.	Ta'ata	Vahine	Tamă iti, Tamārii	Tamă hine	Metua tane.
10.	Tangata	Mahine, Morire	Makaro	Manania	Makui.
11.	Tangata	Ahine, Aine	Tamă	Tama hine	Motua.
12.	Tangata	Vaine	Tamăroa, Tamaiti	Tamaine	Metua tane.
13.	Tangata	Wahine	Tamă iti	Hine, Kohine	Matua, Pāpā.
14.	Lee	Honi, Hen	Lee lilii, Fameamea	Lee honi	Oifa.
15.	Tangata	Fafine	Tamă	Teine	Tamā.
16.	Tauna, Ta-unimanima	Hahine	Mero	Kekeni, Haniulata	Tamana.
17.	Lehilahy	Vehivavy	Zazalahy	Zazavavy	Ray, Baba.

	Belly	*Navel*	*Breast*	*Hand*	*Finger.*
1.					
2.	Prut	Pusat	Dada, Susu	Tangan	Jari.
3.	Manāva	Pute	Fatafata, Susu	Lima	Tamatama'i-lima.
4.	Manava	Pito	Fatafata, Huhu	Lima	Matalima.
5.	Ngete	Bito	Huhu	Nima	—
6.	Kete	—	Suthu	Linga	Iqaqalo-ni-linga.
7.	Kaopu	Piko	U	Lima	Manamanalima.
8.	Opu	Pito	U	Ima	—
9.	Opu	Pito	U	Rima	—
10.	Kopu	Pito	Kouma, U	Rima	Manemanea.
11.	Kopu	Pito	U	—	—
12.	Kopu	Pito	U	Rima	Maikao.
13.	Kopu, manawa	Pito	U	Ringa	Matihao.
14.	Efe	—	Fatfat, Sus	Haephaep	Kakae.
15.	—	—	—	—	—
16.	Boka	Udo	Geme	Ima-palapala	Ima-qagiqagi.
17.	Kito.	Foitra	Tratra	Tanana	Rantsan-tanana.

Digitized by Google

COMPARATIVE VOCABULARY OF

1. *English*	*Foot*	*Blood*	*Bone*	*Skin*
2. Malayan	Kaki	Darah	Tulang	Kulit
3. Samoan	Vae	Toto	Ivi	Pa'u
4. Niuéan	Hui	Toto	Hui	Kili
5. Tongan	Vae	Toto	Hui	Kili
6. Fijian	Yava	Dra	Sui	Kuli
7. Hawaiian	Wawae	Koko	Iwi	Ili
8. Marquesan	Vaevae	Toko	Ivi	Iri
9. Tahitian	avae	Toto	Ivi	Iri
10. Paumotuan	Vaevae	Tikairi	Keiga	Kiri
11. Mangarevan	Vavae	Toto	Ivi	Kiri
12. Rarotongan	Vaevae	Toto	Ivi	Kiri
13. Maori	Wae	Toto	Iwi	Hiako, kiri
14. Rotuman	Aftea	Tot	Sui	Ul
15. Tokelauan	—	—	—	—
16. Motu	Ae-palapala	Rara	Turia	Kopi
17. Malagasy	Tongotra	Ra	Taolana	Hoditra

1. *English*	*Nose*	*Mouth*	*Tongue*	*Tooth*
2. Malayan	Hidong	Mulut	Lidah	Gigi
3. Samoan	Isu	Ngutu	Laulaufaiva (Alelo)	Nifo
4. Niuéan	Ihu	Ngutu	Alelo	Nifo
5. Tongan	Ihu	Ngutu	Elelo	Nifo
6. Fijian	Uthu	Ngusu	Yame	Bati
7. Hawaiian	Ihu	Waha	Alelo	Niho
8. Marquesan	Ihu	Vaha	Eeo	Niho
9. Tahitian	Ihu	Vaha	Arero	Niho
10. Paumotuan	Ihu	Vaha	Arero	Niho
11. Mangarevan	Ihu	Haha, Aha	Erero	Niho
12. Rarotongan	Puta-iu	Vaa	Arero	Nio
13. Maori	Ihu	Mangai, Waha	Arero	Niho
14. Rotuman	Isu	Nuj	Alele	Ala
15. Tokelauan	—	—	—	—
16. Motu	Udu	Udu	Mala	Hisc
17. Malagasy	Orona	Vava	Lela	Nify

Digitized by Google

POLYNESIAN WORDS.

	Head	*Hair*	*Face*	*Eye*	*Ear.*
1.	Kĕpāla (hulu)	Rambut, bulu	Muka	Mata	Telinga.
2.	Ulu	Lau-ulu	Mata	Mata	Talinga.
3.	Ulu	Lau-ulu	Mata	Mata	Telinga.
4.	Ulu	Lo-ulu	Mata	Mata	Telinga.
5.	Ulu	Drau-ni-ulu, Vulua	Mata	Mata	Dalinga.
6.	Poo	Hulu	Kamaka	Maka	Pepeiao.
7.	Upoo	Ouoho, huu	Mata	Mata	Puaina.
8.	Upoo	Huruhuru	Mata	Mata	Taria.
9.	Maro, Panene, Pepenu	Huruhuru	Mata, nohi	Nohi	Taringa.
10.	Upoko	Huru Uru	—	Mata	Teringa.
11.	Upoko	Rau-uru	Mata	Mata	Taringa.
12.	Upoko	Huruhuru	Mata	Kanohi	Taringa.
13.	Filou	Leva	Maf	Mafa	Faliang.
14.	—	—	—	—	—
15.	Qara	Hui	Vaira	Mata	Taia.
16.	Loha	Volo	Tarehy	Maso	Sofina.

	Tree	*Cocoanut*	*Breadfruit*	*Yam*	*Taro.*
1.	Puhn	Nior, Nūr	Sukun, Kuru	Ubi	—
2.	La'au	Niu	'Ulu	Ufi	Talo.
3.	Akau	Niu	Mei	Ufi	Talo.
4.	Akau	Niu	Mei	Ufi	Taro.
5.	Kau	Niu	Uto	Uvi	Dalo.
6.	Raau, Laau	Niu	Mei, Uru	Uhi	Kalo.
7.	Kaau, Akau	Eehi	Mei	Bua-uhi	Tao.
8.	Raau	Haari, Niu	Uru	Uhi	Taro.
9.	Rakau	Niu	Kuru	Uhi	Fakea-matietie.
10.	Rakau	Nikau, Niu	Nohunohu	Uhi	—
11.	Rakau	Niu, Nu	Kuru	Ui	Taro.
12.	Rakau	Nikau	—	Uhi	Taro.
13.	Oi	Niu	Ul	Uk	—
14.	Lakau	Niu	—	Ufi	Talo.
15.	Au	Niu, Ngaru	Ūnu	Uhe, Maho	Talo.
16.	Hazo	Voanio, Nio	—	Ovi	—

Digitized by Google

COMPARATIVE VOCABULARY OF

	Sugar-cane	*Banana*	*Pig*	*Fish*
1. *English*	*Sugar-cane*	*Banana*	*Pig*	*Fish*
2. Malay	Tubbū, Toro	Pisang	Babi	Ikan, Ika
3. Samoan	Tolo	Fa'i	Pua'a	I'a
4. Niuéan	To	Futi	Puaka	Ika
5. Tongan	To	Hopa	Buaka	Ika
6. Fijian	Ndovu	Vuni, Vote	Vuaka	Ika
7. Hawaiian	Ko	Maia	Puaa	I'a
8. Marquesan	To	Meika	Puaa	Ika
9. Tahitian	To	Mei'a	Pua'a	I'a
10. Paumotuan	To	Meika	Puaa	Ika, Paru
11. Mangarevan	To	Meika	Puaka	Ika
12. Rarotongan	To	Meika	Puaka	Ika
13. Maori	—	—	Poaka, Puaa	Ika
14. Rotuman	Thou	Per	Puaka	I'a
15. Tokelauan	—	Fai	Puaka	Ika
16. Motu	Tohu	Dui (plant) / Bigu (fruit)	Boroma	Qaruine
17. Malagasy	Fary	Akondro	Kisoa	Hazandrano

[1] Many Melanesian words for "house" are derived from

	Bow	*Arrow*	*Good*	*Bad*
1. *English*	*Bow*	*Arrow*	*Good*	*Bad*
2. Malayan	Pānah	Anak-pānah	Baīk, Fia	Būruk, Leak
3. Samoan	'Aufana	U	Lelei	Leanga
4. Niuéan	Kaufana	Fana	Mitaki	Kelea
5. Tongan	Kaufana	Kaho	Lelei, Marie	Kovi
6. Fijian	Dakai, Vueu	Ngāsau	Vīnaka	Tha
7. Hawaiian	Pana	Pua-pana	Maitai, Pono, Pua	Ino
8. Marquesan	Pana	Koniu	Meitai	Po
9. Tahitian	Fana	Ohe	Maita'i	Ino
10. Paumotuan	Poro-fana	Teka	Maitaki, Viru	Kiro, Manuanu
11. Mangarevan	Pana	—	Marie	Kino
12. Rarotongan	Ana	—	Meitaki	Kino
13. Maori	Whana	Pere	Pai	Kino
14. Rotuman	Loloki, Fan	Fana	Lelei	Raksa
15. Tokelauan	—	—	Lelei	Leanga
16. Motu	Peva	Diba	Namo	Dika
17. Malagasy	Isipiki	Zanatsipika	Tsara, Soa	Ratsy

Digitized by Google

Polynesian Words.

	Fowl	*House*	*Canoe*	*Club*	*Spear.*
1.					
2.	Ayam, Hayan	Rumah, Fari[1]	Prau, Sampan, Wangkang	Gāda, Palu, Tokam	Tombak.
3.	Moa	Fale	Va'a	Uatongi	Tao.
4.	Moa	Fale	Vaka	Lakau	Tao.
5.	Moa	Fale	Vaka	Akau	Tao.
6.	Toa, Manu-manu	Vale	Waqa	Wau, Nai	Moto.
7.	Moa, Manu	Hale, Hare	Wa'a, Vaka	Nēūa	Ihe, Kao, Polulu.
8.	Moa, Manu	Hae	Vaka, Vaa	Akau-toa	Pakeo.
9.	Moa	Fare	Vaa, Pahi	Raau	Mahae, Tao, Niu.
10.	Moa, Manu	Fare	Vaka	Paringi	Komore.
11.	Moa	Hare	Vaka	—	Tao.
12.	Moa	Are	Vaka	Lupo	Korare.
13.	Tikaokao	Whare	Waka	Patu, Mere, Mere-mere	Tao, Matia.
14.	Moa, Manu-manu	Ri	Katea	Omus-oi	Jau.
15.	Moa	Fale	Vaka	—	Tao.
16.	Kokorogu	Ruma	Vanagi (small), Asi (large)	Kaleva (wood), Gahi (stone)	Io.
17.	Akoho	Trano	Lakana	Zara	Lefona.

rumah. Malayan *Fari* is a large house, court, or palace.

	Great	*Small*	*New*	*Old*	*Near.*
1.					
2.	Besar	Kechil, Kiiti-kiiti	Bhārū	Tūah	Dekat, Ara.
3.	Tele, Nui	Kiiti	Fou	Tuai	Latalata.
4.	Lahi	Tote	Fou	Tuai	Tata mai.
5.	Lahi	Jii	Foou	Tuai	Oū, Tata.
6.	Levu	Lailai	Vou	Mandra	Voleka.
7.	Nui, Loa	Iki, Poko	Hou	Kahito	Kokoke.
8.	Nui	Iti	Hou	Kahiu, Tehito	Tata.
9.	Rahi, Nui	Iti	Hou, Api	Tahito	Fatata.
10.	Paneke	Korereka	Hou	Tahito, Veruveru	Fakaka, Fakuliu.
11.	Tere, Nui	Nik	Hou	Taito	Tutata, Taha.
12.	Māta	Ngiti	Ou	Hamiriatu, Taito	Vaitata.
13.	Rahi, Nui	Nohinohi, Iti	Hou	Tawhito, Auki	Tata, Tutata.
14.	Te'u, Tete'u	Me'ame'a	Foou	Kekel	Hoieleung.
15.	Tele	Itiiti	Fou	Leva	Late mai.
16.	Pata	Maragi	Matamata	Gunana	Kahilakshiia.
17.	Lehibe	Kely, Madiniki	Vaovao	Antitra, Ela	Akaiky.

Digitized by Google

COMPARATIVE VOCABULARY OF

1. *English*	*Distant*	*To Live*	*Die*....	*Breathe* ....
2. Malayan ...	Jāūh	Ber-idup	Mati	Nafas, Bernafas ...
3. Samoan ...	Mamao	Ola....	Oti, Mate	Mānava ....
4. Niuéan	Mamao	Moui	Mate	Fafangu ....
5. Tongan	Mamao	Moui	Mate	Mānava ....
6. Fijian ...	Yawa	Bula	Mate	Thengu ....
7. Hawaiian ...	Mamao, Loihiaku	'Ola	Make	Hanu ....
8. Marquesan	Memao	Pohoe	Mate	Mānava ....
9. Tahitian	Te, atea	Ora....	Pohe, Mate	Hufi te aho ....
10. Paumotuan ...	Mamao, Maorotakake	Ora....	Mate	Anave ....
11. Mangarevan	Mamao	Ora....	Mate	—
12. Rarotongan	Mamao	Ora....	Mate	A'o.... ....
13. Maori	Mamao, Tawhiti	Ora....	Mate	Manawa, Whakaha
14. Rotuman ...	Sousou	Mauri	Ala....	Huang ....
15. Tokelauan ...	Mamao	Ola	Mate	Mānava ....
16. Motu	Daudau	Mauri	Mate	Lega ....
17. Malagasy	Lavitra	Velona	Maty	Miaina ....

1. *English*	*To go*	*Come*	*Eat*	*Drink* ....
2. Malayan	Pergi, Pai	Datang, O mai	Makan	Minum ....
3. Samoan	Alu, O (pl.) ...	Sau,[1] O mai (pl.)	'Ai	Inu ... .
4. Niuéan	Fano, Haele, O (pl.)	Haele mai, O mai (pl.)	Kai....	Inu.... ....
5. Tongan	Alu, O (pl.)	Hau, Alu, O (pl.)....	Kai....	Inu.... ....
6. Fijian ...	Lako	Lako mai	Kana	Ngunu ....
7. Hawaiian	Here, Hele aku	Here mai, Hele mai	Ai	Inu, Unu ....
8. Marquesan	He'e	A mai	Kai, Kaikai ...	Inu.... ....
9. Tahitian ...	Haere atu	Haere mai	Amu	Inu.... ....
10. Paumotuan	Haere atu	Haere mai.... ...	Kai, Ngau....	Kami, Komo ...
11. Mangarevan	Ere....	Ere mai, Nau mai	Kai....	Inu.... ....
12. Rarotongan	Aere atu	Aere mai, Tae	Kai....	Inu, Unu ....
13. Maori	Haere atu	Haere mai	Kai, Ngai	Inu, Unu ....
14. Rotuman ...	La'o	Leum, Heleu	Ate, Telsa	Iom ....
15. Tokelauan	Alu....	Sau....	Kai....	Inu.... ....
16. Motu	Lao	Mai	Ania	Inua ....
17. Malagasy	Mandekap, Helihely	Avy, Avia	Homana, Mihinana	Misotro ....

[1] The word to or of chiefs is very different, and varies

Digitized by Google

POLYNESIAN WORDS.

1. *See*	*Hear*	*Know*	*Think*	*Make.*
2. Liat, Amata	Dangar	Tūū	Kira, Mengiea	Karja.
3. Va'ai, Matamata	Fa'alongo, Langona	Iloa	Manatu	Fai.
4. Kitekite, Kitea	Fanongonongo	Iloa, Fioia	Manatu, Mauamanatu	Eke.
5. Mamata, vakai	Fanongo	Ilo	Manatu	Ngaoki.
6. Raitha	Rongo	Kila	Nanuma	Thakava.
7. Ike	Lono	Ike	Mana'o	Hana.
8. Kite.... ...	Hakaono	Kite	Metao	Pepena.
9. Ite, Hi'o	Fa'aro'o	Ite	Mana'o	Haa, Hamani.
10. Hipa	Rongo	Kite	Manako	Hanga, Patu.
11. Kite, Nana....	Rongo	Kite	Makara	Hanga.
12. Akalu, Kite	Rongo	Kite	Ma'ara	Angaanga, Manni.
13. Kite....	Rongo	Kite, Matau	Hua, Mahara	Hanga, waihanga.
14. Tel, Rae	Aafai	Inea	Ahae	Re.
15. Va'ai	Fakalongo	Iloa	Manatu	Fai.
16. Haia	Kamonai	Diba	Laloa	Karaia.
17. Mahita	Maharé, Mandre	Mahalala	Mihevitra	Manao.

1. *Sit*	*Place*	*Laugh*	*Weep*	*Fear.*
2. Duduk ...	Tarep	Tertawa, Galak	Tangis	Takut-an.
3. Nofo	Tu'u	'Ata, 'Ata'ata	Tangi, Auē	Fefe, Mata'u.
4. Nofo	Tuku	Kata	Tangi	Mataku.
5. Nofo	Tuku	Kata, Katakata	Tangi	Manavake.
6. Tiko	Viria	Drendre	Tangi	Rere.
7. Noho ...	Kau iho	Aka, Akaaka	Kani, U, Uē	Hopo, Mata'u.
8. Noho	Tu'u	Kata	Eue	Meta'u.
9. Noho, Parahi	Tu'u	Ata....	Ta'i....	Matau.
10. Noho, Tarau	Hakaruke	Kata	Tangi, Tatangi	Mataku.
11. Noho	Atatotoko	Kata	Tangi	Matake, Ete.
12. No'o	Tuku	Kata	Tangi, Auē ...	Mataku, Hopi.
13. Noho	Whiu	Kata	Tangi	Mataku, Hopi.
14. Noho-sio, Ho	Nasua, Popona	Kaha	Ouou	Fea, Mamoru.
15. Nofo	Tuku	Kata	Tangi	Mataku.
16. Helai ...	Atoa	Kiri	Tāi	Gari.
17. Mipetraka	Manetraka..	Mihomehy....	Mitomany	Mabahotra.

according to rank, such as *afio, susu, mariu.*

Digitized by Google

COMPARATIVE VOCABULARY OF

1. *English*	*I*	*Thou*	*He, she, it*	*We* (dual inclusive)
2. Malayan	Aku, Daku, Kita	Kau, Dika	Iya, Inya	—
3. Samoan	A'u, 'Ita	Oe	Ia	Tāua
4. Niuéan	A'u	Koe	Ia	Tāua
5. Tongan	A'u	Koe	Ia	Tau
6. Fijian	A'u	Iko	Iya, Koia	Kendrau, Kendaru
7. Hawaiian	A'u, Wau	Oe	Ia	Kāua
8. Marquesan	A'u	Koe	Ia	Tāua
9. Tahitian	A'u, Vau	Oe	Ia	Tāua
10. Paumotuan	Vau	Koe	Ia	—
11. Mangarevan	A'u	Koe	Ia	Tāua
12. Rarotongan	A'u	Koe	Koia	Tāua
13. Maori	A'u, Akau	Koe	Ia	Tāua
14. Rotuman	Ngou	Ae, Ou	Ia	Itara
15. Tokelauan	A'u	Oe	Ia	Tāua
16. Motu	Lau	Oi	Ia	Ita raruoti
17. Malagasy	Aho, Izaho	Hianao	Izy	—

1. *English*	*They* (dual)	*They* (plural)	*One*	*Two*	*Three*
2. Malayan	—	Orang, Kamu	Tahi, Sa, Satu, Asa	Dua	Tīga
3. Samoan	Lāua	Latou	Tasi	Lua	Tolu
4. Niuéan	Lāua	Lautolu	Taha	Ua	Tolu
5. Tongan	Nāua	Lautolu, Nau	Taha	Ua	Tolu
6. Fijian	Rau	Ra, Ratou	Dua	Rua	Tolu
7. Hawaiian	Lāua	Lakou	Kahi	Lua	Kolu
8. Marquesan	Āua	Atou	Tahi	Ua	Tou, Toru
9. Tahitian	Rāua	Ratou	Tahi	Rua, Iti	Toru
10. Paumotuan	Rāua	Ratou	Rari	Piti	Naeti
11. Mangarevan	Rāua	Ratou	Tahi	Rua	Toru
12. Rarotongan	Rāua	Ratou	Ta'i	Rua	Toru
13. Maori	Rāua	Ratou	Tahi	Rua	Toru, Tengi
14. Rotuman	Iria	Iris, Oris	Taa, Esea	Rua	Folu
15. Tokelauan	Lāua	Latou	Tasi	Lua	Tolu
16. Motu	Idia raruoti	Idia	Tamona	Rua	Toi
17. Malagasy	—	Izy	Isa, Iray	Roa	Telo

Digitized by Google

POLYNESIAN WORDS.

	We (dual exclusive)	*We* (plural inclusive)	*We* (plural exclusive)	*You* (dual)	*You* (plural).
1.					
2.	—	Kita	Kami	—	Kau.
3.	Māua	Tatou	Matou	Oulua	Outou.
4.	Māua	Tautolu	Mautolu	Mua	Mutolu.
5.	Māua	Tau, Tautolu	Mautolu	Moua	Moutolu.
6.	Keīrau	Datou	Keimami	Kemundrau	Kemudou, Tou.
7.	Māua	Kakou	Makou	Olua	Oukou.
8.	Māua	Tatou	Matou	Koua	Kotou.
9.	Māua	Tatou	Matou	Orua	Outou.
10.	Make	Tatou	Matou	Korua	Koutou.
11.	—	Tatou	Matou	Korua	Kotou.
12.	Māua	Tatou	Matou	Korua	Kotou.
13.	Māua	Tatou	Matou	Korua	Koutou.
14.	Omiara	Is, La	Omis	Ausa	Ou, Ousa.
15.	Māua	Tatou	Matou	Oulua	Outou.
16.	Ai raruoti	Ita	Ai	Umui-raruoti	Umui.
17.	—	Isikia	Izahay	—	Hianareo.

	Four	*Five*	*Six*	*Seven*	*Eight*	*Nine*	*Ten.*
1.							
2.	Ampat	Lima	Anam	Tūjuh	Salāpan, Delapan	Sambilan	Sapūluh.
3.	Fa	Lima	Ono	Fitu	Valu	Iva	Sefulu, Ngafulu.
4.	Fa	Lima	Ono	Fitu	Valu	Hiva	Hongofulu.
5.	Fa	Nima	Ono	Fitu	Valu	Hiva	Ngofulu.
6.	Va	Lima	Ono	Vitu	Walu	Thiwa	Tini, Ngavulu.
7.	Ha	Lima	Ono	Hiku	Walu	Iwa	Umi.
8.	Ha	Ima	Ono	Itu, Fitu	Vau	Iva	Onohu'u.
9.	Ha, Maha	Rima	Ono	Hitu	Varu	Iva	Ahuru.
10.	Ope	Miha	Hene	Hito	Varu, Hava	Nipa	Horihori.
11.	Ha	Rima	Ono	Hitu	Varu	Iva	Rongouru.
12.	A	Rima	Ono	Itu	Valu	Iva	Ngauru.
13.	Wha	Rima	Ono	Whitu	Waru	Iwa	Ngahuru.
14.	Hake	Liam	Oon	Hif	Vol	Siar	Sanghulu.
15.	Fa	Lima	Ono	Fitu	Valu	Iva	Sefulu.
16.	Hani	Ima	Tauratoi	Hitu	Taurahani	Taurahanita	Qauta.
17.	Efatra	Dimy, Limi	Enina	Fito	Valo	Sivy	Folo.

Digitized by Google

[Since the foregoing paper was sent to the Institute, information has been received of the author's death at Sydney, N.S.W. The Rev. Samuel Ella was born in 1823 and was one of the oldest missionaries of the London Missionary Society. He was accepted by the Society in 1847 and went out as printer to Samoa. He remained there for fourteen years, and was ordained a full missionary in 1860. After two years' stay in Sydney on account of ill-health, he went to Uvea, in the Loyalty Group, where he established a mission among the Melanesians of the island. He returned to Sydney in 1875 after eleven years' labour, and died on February 12th of this year. He was the translator of the New Testament into the Melanesian language of Iai, spoken on Uvea Island, and took great interest in all that concerned the Polynesian races. He had been President of the Australian Association for the Advancement of Science. To his kindness and courtesy the present writer owes much information on the languages of Southern Melanesia.—S. H. R.]

Digitized by Google

ANTHROPOLOGICAL REVIEWS AND MISCELLANEA.

Readers of the Journal are invited to communicate any new facts of especial interest which come under their notice. Short abstracts of, or extracts from, letters will be published at the discretion of the Editor. Letters should be marked "Miscellanea" and addressed to The Secretary, 3, Hanover Square, W.

NOTES ON THE LANGUAGES OF THE SOUTH ANDAMAN GROUP OF TRIBES. By M. V. Portman. Calcutta, 1898.

Although not a professed philologist, Mr. Portman has made good use of his opportunity as the officer in charge of the Andamanese natives for some years to give linguistic students a clear and accurate account of the remarkable form of speech current in several closely related varieties amongst these aborigines.

The present volume supplements and, where necessary, rectifies the extensive studies already made by Mr. E. H. Man and Colonel R. C. Temple, some of the results of which have appeared in this *Journal*. How important was the work done by these labourers in an obscure and particularly thorny field, appears from the fact that Mr. Man was the first to give written form to the Andamanese language, under quite exceptional difficulties, due to its astonishingly rich phonetic system, comprising no less than twenty-four distinct vowel and seventeen consonantal sounds. Mr. Man has also collected copious materials for a grammar and a dictionary of over 6,000 words, which he has, jointly with Colonel Temple, arranged for publication. Such of these materials as are available for reference have been utilised, together with a great deal of fresh data, in the preparation of Mr. Portman's book, which, under the modest title of *Notes*, forms a large octavo volume of nearly 600 pages, but with a peculiar arrangement and pagination, the convenience of which is not obvious. Thus there are first of all eight chapters, which are consecutively paged up to p. 188, and deal somewhat thoroughly with the peculiar features of the language, with special reference to the views of Mr. Man and Colonel Temple on this subject; with the tribal divisions and sub-divisions of the natives; with the structure of the sentence illustrated by analytical notes and translations from the Gospel of Saint Matthew; with Andamanese myths, legends, songs, and folklore, these subjects being also illustrated with original texts, copious explanatory notes, and even variants of the same legend in three or four different dialects.

Then follows another series of eight chapters, which are also consecutively paged up to p. 391, but are entirely devoted to an exceedingly valuable analysis of a comparative vocabulary of about 2,300 words in English, and the five chief dialects of the South Andamanese group. This vocabulary, however, is separately paged from 1 up to 191, thus completing the volume, which with preface makes, as stated, nearly 600

Digitized by Google

pages altogether. If, therefore, a double pagination was needed, it should obviously have begun with Chapter IX, and run on continuously with the vocabulary, with which Chapters IX to XVI are exclusively connected. But the inconvenience is not so great as might be supposed, because English is the first of the six lexical columns, and is fortunately arranged without break from A to Z, and not disposed in a number of exasperating sections—nouns, adjectives, verbs, etc., as is too often the case with such collections. I have in my possession a vocabulary of an eastern language, in which the words are ingeniously broken up into sixteen distinct groups, on some abstruse psychological principle which I have never yet been able to fathom.

But where the material brought together is of such excellent quality, a somewhat defective arrangement may well be overlooked. How valuable to students of the evolution of language are the chapters occupied with the analysis of the vocabulary one example will suffice to show. In the vocabulary the English preposition "above" is rendered in the chief dialect *táng len*, which in the analysis (p. 190) is explained to mean literally "in the roof," because "the Andamanese puts his property away by sticking it in the thatched roof of his hut." Thus the concrete expression "in the roof" has acquired a purely relational force, and from hundreds of such instances we see how true it is that all the familiar elements of speech must have originally been notional terms.

But the chief interest of this language, constituting it an order of speech, one might say, absolutely *sui generis*, lies in its twofold development of prefixed and postfixed particles, thus combining within itself the essential characters of two distinct types of agglutination, as represented, for instance, in the Ural-Altaic postfix and the Bantu prefix systems. The result is an exuberance of relational elements, which, like the tangled vegetation of tropical woodlands, actually interfere with each other's grammatical functions. About the nature of the postfixes there is no difficulty, all agreeing that they are of the same normal character as those of other postfixing groups, and differ from the typical Mongolo-Turki only in the total exclusion of vocalic harmony. But so varied and subtle are the uses of the numerous prefixes, that opinions well may differ respecting their true character. Mr. Man and Colonel Temple appear to regard them all as of one category—pronominal determinatives—whereas Mr. Portman plainly shows that their function is twofold, qualitative inasmuch as they modify the meaning of the roots and thus classify them, and strictly grammatical, either possessive pronouns or indicative of gender. But on this point he speaks somewhat doubtfully, remarking that "it appears to me that one of the functions of the prefixes is to indicate gender, not in the sense of male and female, but in the sense of classifying the Andamanese roots into genera or groups." Then he adds: "In order to modify its meaning, a root may have two or even three prefixes, one of which is probably a gender prefix. The system by which the roots are classified into genera is not known, and the opinions of individual Andamanese on the subject are only of value as showing the mode of thought of the people" (p. 81).

It is remarkable that, with all this wealth of formative particles, the numerals are limited, as in the Australian and many New Guinea languages, to *one* and *two*. *Three* really means "one more"; *four* "some more," and *five* "all"; and here their arithmetic may be said to stop altogether. In some groups, however, *six* or *seven*, or perhaps even *ten*, may be reached by the aid of the nose and fingers. First the nose is tapped with the little finger of either hand to score *one*, then with the next finger for *two*, and so on up to *five*, each successive tap being accompanied with the word *anka*, "and this." The process is then continued with the second hand, after which both hands are joined together to indicate 5 + 5, the score being clenched with the

Digitized by Google

word *àrdúru*, "all." But few get as far as this, and the process usually breaks down at *six* or *seven*.

While indispensable to the student of language, Mr. Portman's book will also be prized by the folk-lorist for the specimens it gives of the Andamanese myths and legends. Several variants are given, all at first hand, of the curious fire-legend, in which *Púluga*, head of the native pantheon, plays a part singularly inconsistent with the idea of a Supreme Being current amongst less primitive peoples.

A. H. KEANE.

THE DOLMENS AND BURIAL MOUNDS IN JAPAN. By William Gowland, Esq., F.S.A., etc., *Archæologia*, vol. lv, pp. 439–524 (1897).

THE DOLMENS OF JAPAN AND THEIR BUILDERS. By W. Gowland, Assoc. R.S.M., F.C.S., F.S.A., *Trans. and Proc. Japan Society*, vol. iv, Part III (1899).

In these two papers we have a clear and well-illustrated account of the Dolmens of Japan by Mr. Gowland, late of the Imperial Japanese Mint. While they have much in common, they are by no means identical as regards either the letterpress or the illustrations, though alike in general treatment and conclusions.

The author remarks that he uses the term "dolmen" in its broad or generic sense to signify "a stone burial-chamber, generally of rude megalithic structure, larger than a cist, and whether covered by a mound or not." They are numerous in Japan, where he has "carefully examined 406 and made drawings of or measured 140." Simple mounds preceded the dolmens. Burial in chambers hewn out of rock was also largely practised by the early Japanese. But standing-stones, either single as "menhirs" or in "avenues" or "circles" have not been discovered in Japan.

The simple burial mounds have been mostly destroyed either "by the hand of time or in reclaiming land for agriculture." The remains found in them consist generally of stone beads and ornaments with swords and arrowheads of bronze. No stone weapons or implements have (in Mr. Gowland's experience) been found in these ancient burial mounds, the evidence tending to show that the Japanese had passed out of the Stone Ages before they migrated from the mainland, and were, when in Japan, in the last stages of their Bronze Age.

A map in the paper from *Archæologia* illustrates the distribution of Burial Mounds, Dolmens and Rock-Hewn Tombs in Japan. We learn that they occur chiefly "in the basins of the greater rivers, on the margins of the more important plains, and near the coasts of the inland and Japan Seas." From their distribution the author thinks that during the dolmen-building period the extreme north-east and some of the wilder tracts of the interior were still held by the Ainu aborigines: this view being confirmed by the increasing numbers of aborigiual stone weapons found as we proceed towards the northern extremity of the island. The situations in which dolmens are usually found are "the lower flanks of a mountain range, and the crests and slopes of the lower hills and upland tracts which bound the plains; sites commanding extensive views being preferred.

The author divides the Japanese dolmens into "four great typical classes according to the general form or plan of their interiors, beginning with the most simple and ending with the most highly differentiated structures." He then gives accounts, illustrated by plans, sections, etc., of examples of these classes and of the weapons, ornaments, etc., discovered in them. No well or even moderately preserved skeleton (he says) has yet been found in any dolmen, owing to the damp atmosphere and free infiltration of water; and this is true even of those in which there is a sarcophagus.

Digitized by Google

As to the period to which they belong, he remarks that "the dolmens are certainly all of the Iron Age." No bronze swords have ever been found in them, though bronze arrowheads associated with iron swords are said to occur occasionally. And as iron was known in China as early as the year 1000 B.C., and as there was communication between China and Japan at least as early as the year 265 B.C., Mr. Gowland thinks the beginning of the Iron Age in Japan may date from about the last-named year; and that shortly after dolmens began to be built. And he states that the total abolition of burial in dolmens was decreed by the Emperor Mommu (697–707 A.D.) and cremation introduced about the same time.

There is no evidence that the dolmen builders had any metallic currency, and no indication that they possessed a knowledge of writing. As to their religious belief:—

"The arms and armour, the ornaments, and the vessels for food and drink, show conclusively that there was a belief in a future state of existence for the dead, not widely different from that they had left behind, and in which they required all those things which they had been accustomed to use in their life on this side of the tomb. The sacrifice of retainers and the subsequent substitution for them of terra-cotta images also bears out this view."

T. V. H.

ETHNOLOGY, in two parts. By A. H. Keane, F.R.G.S., 2nd edition, Cambridge, 1896.
"Man, Past and Present." By the same author. Cambridge, 1899.

In these two volumes, the work of Professor Keane, we have at last a comprehensive treatise on the Science of Man, which may safely be placed in the hands of English students of Anthropology. The existing English literature of the subject includes pre-Darwinian books, such as those by Dr. Prichard, Messrs. Nott and Gliddon, and Dr. Latham. Since then English scholars, such as Professors Huxley, Tylor, and Boyd Dawkins, Mr. Darwin, Sir John Evans, Sir John Lubbock, and many writers in the *Journal of the Anthropological Institute*, have made important contributions to the knowledge and evolution of Early Man. But while continental writers have provided many valuable works of a comprehensive character, the English student has hitherto possessed no standard treatise of the subject as a whole, except the *Anthropology* of Dr. Tylor and Dr. Brinton's *Races and Peoples*, both admirable works, but of a less comprehensive range than Professor Keane's Manuals.

The new Cambridge Geographical Series thus supplies an obvious want. The author is one of the most learned members of the modern English Anthropological school. His range of reading in the highways and byways of Ethnological literature is immense; his manuals are brightly written, well arranged and excellently illustrated.

The treatise on Ethnology consists of two parts—the first dealing with those fundamental problems which affect the human family as a whole; the second discussing the several main branches of Mankind. In "Man, Past and Present," the range is wider and the author discusses in detail the origin and inter-relations of the main groups of the Hominidæ, and attempts to bridge the gulf between the past and present of the Human Race.

It is, of course, impossible to review in detail the vast amount of information thus brought to bear upon the physical and psychical development of Man. Mr. Keane is naturally a follower of the evolutionary school; he dismisses the theory of a special creation and concludes that man has been developed from a Pliocene ancestor. He is not "descended" from the gorilla, the chimpanzee, or some other member of the Simiiadæ, his nearest congeners; but his ascent is referred to some long extinct

Digitized by Google

generalised form, from which the other branches also sprung along independent lines. Specially deserving of study in the treatise on ethnology are his views on the evolution of neolithic megalithic architecture, the relations of race to language, the ethnological problems of Australia and Tasmania, the Stone Age and the local independent evolution of culture in America.

In "Man, Past and Present" the reader will specially direct his attention to the admirable discussion of the inter-relation of the Caucasic peoples along the shores of the Mediterranean, the distribution of the Mongoloid races and the ethnological problems of India—the relations of the Aryan and Dravidian culture and the origin of the modern Râjputs and Jâts. Some attention is also devoted to the coincidence of the folklore and mythology of distant races, in regard to which he strongly advocates the view that where actual contact and outward influences are excluded by considerations of time and space, this identity is a proof of the common psychic nature of Man. The question which he raises of the dependence of early taboos on the regulation of the food supply deserves more detailed treatment than the author is able to bestow upon it. On the great marriage question he discards all theories based upon promiscuity and so-called "Communal Marriage." Unfortunately, the great work of Messrs. Spencer and Gillen on *The Native Tribes of Central Australia* was published after the completion of these books. We may expect to find the important results arrived at by these writers in connection with marriage and Totemism utilised in a future edition.

Professor Keane will add to the obligations of English readers by the publication of his Ethnographical Atlas, of which we are glad to welcome the announcement. Meanwhile he has completed a work which will be of the greatest value to students, and which should be in the hands of the many explorers in the ranks of the navy, army, and civil services engaged in the administration of our Indian and Colonial Empire.

The science of Ethnology abounds in problems which have been the battle-ground of various schools. It would be too much to expect that all experts on the multitudinous questions with which he deals will agree in Professor Keane's conclusions. But the writer of a text-book must have the courage of his own convictions, and if such a manual is to be of any real value, it must express definite views, while a complete statement of opposing theories is out of the question. At any rate, the author has everywhere, by his copious references to the best authorities, made it possible for any reader to test the evidence for himself.

W. Crooke.

Der Periplus des Hanno. Von Dr. Karl Emil Illing. Separately printed from the *Programm des Wettiner Gymnasiums.* Dresden, 1899, No. 566. (Printed by the Rammingsche Buckdruckerei.) 8vo. pp. 49.

This is a learned and compendious discussion of the principal questions raised by the *Periplus.* It includes separate sections on the Date of Hanno, which Dr. Illing places (against Meltzer) between 450 B.C. and 287 B.C., but finds no valid evidence by which to define more closely; on the Pillars of Hercules, which (against C. T. Fischer) he regards as the well-known geographical promontories, not the votive columns at Gades; on the length of the Day's Journey in the *Periplus*, which he regards with Vivien de St. Martin as very inferior in value to the topographical indications; on the Voyage of Colonisation, in which he sums up the results of modern geographical and ethnological research bearing on the places and tribes mentioned as

Digitized by Google

far as Kerne; on the Voyage of Discovery beyond Kerne, where he takes the θεῶν ὄχημα for the modern *Mongo ma Loba* ("Mountain of the Gods"), the highest peak of the Cameroons, and the Νότου κέρας for the neighbourhood of Corisco Bay; and finally on the "Gorillas," whom he regards with some probability, not as apes, but as members of a hairy pygmy race of men, taking κρημνοβάται = "good climbers" like the pygmies seen by Emin Pasha; and proposing the very ingenious emendation πτεροῖς ἀμυνόμενοι, "defending themselves with feathered arrows" (as the pygmies actually do), in place of the meaningless μετρίοις of the MS., or the pointless correction πέτροις which is found in most of the editions of the *Periplus*.

J. L. M.

Bird Gods. By Charles de Kay. London: Allenson, 1898.

This is an attempt to prove that much of the mythology of Europe and elsewhere is based on the cult of birds. The author has collected a considerable amount of curious information, but he gives no references to his authorities, and his conclusions are not likely to meet acceptance by sober students of mythology.

W. Crooke.

Authority and Archæology, Sacred and Profane. Essays on the Relation of Monuments to Biblical and Classical Literature, by S. R. Driver, D.D., E. A. Gardner, M.A., F. L. L. Griffith, M.A., F. Haverfield, M.A., A. C. Headlam, M.A., D. G. Hogarth, M.A. Edited by D. G. Hogarth. London: Murray, 1899. 8vo. pp. xvi, 440.

This useful volume is an attempt to express in a small compass the changes which have been necessitated in our view of the historical authority of Hebrew, Greek, and Latin literature by the exploration and excavation of Classical and Biblical lands and sites. The editor, who is well known as a "Wandering Scholar in the Levant," and as the Director of the British School of Archæology in Athens, introduces the question by a short discussion of the scope of archæology, and of the lines along which archæological evidence has proved, and may still be expected to prove, a valuable touchstone and corrective of literary tradition.

The essays which follow are by different hands. Professor Driver treats of *Hebrew Authority* in Part I, dealing first with the subject matter of the Pentateuch, and then with the history of the Jewish Kingdom and of the Exile; to this are appended a very full collection of parallels to Biblical phrases and customs derived from epigraphic and other sources, and a most judicious estimate of the present position of Old Testament criticism, with special reference to the so-called "conflict" between the archæological and linguistic schools, of which so much has been made by the opponents of any sort of criticism at all. Professor Driver has little difficulty in making his contention clear that the alleged cases of divergence are based on misapprehension or misrepresentation of the conclusions either of the archæologists, or of the philologists, or, quite frequently, of both.

In Part III, *Christian Authority*, or the value, as history, of the documents of the New Testament, is examined by Rev. A. C. Headlam in the same cautious and thorough-going manner. The principal subjects of discussion are, naturally, first the results of the recent discoveries of early papyrus documents in Egypt—small enough it is true, but most suggestive, and, for the circumstances of the first age of Christianity, most instructive; next, the conclusions which may be drawn from the Christian or

Digitized by Google

quasi-Christian inscriptions—mostly epitaphs—discovered in certain districts of Phrygia by Professor W. M. Ramsay and other travellers; and thirdly, the revised interpretation which the first really thorough examination of the Catacombs, or the first systematic collation of the multitude of inscriptions in them, has permitted, of the half legendary history of the beginnings of the Christian Church in Rome.

Part II, interpolated as it were between the Old and the New Testament, but *chronologically* in its proper position with regard to both of them, sums up the present state of "profane" archæology in its bearings upon the literature and history of Greece and Rome. This part naturally covers a wider and less homogeneous field, and suffers the more, in that the main positions were here for the most part much earlier won, so that the recent contributions to our knowledge have been much more of the nature of detailed corroboration or correction than in regard to the history of the Jewish action or of the Christian Church.

The section entitled "Egypt and Assyria" is little more than a detailed criticism of the writings of Herodotus in the light of modern research. Mr. Griffith is admirably qualified by his close study of the Egyptian and Assyrian versions of the events, personages, and customs which are in question, to produce a thorough and most compendious commentary on all the passages where Herodotus is definitely wrong, or where his testimony has been called in question. But we think that he has prejudiced his own case by insisting too exclusively on this side of the matter, and by following too closely the method once popularised by Professor Sayce of assuming Herodotus to be wilfully wrong, except when he can be proved to be accidentally right. No one now-a-days goes to Herodotus, as many still do go to "Homer" or to "Moses" for first hand information about early Egypt or the order of natural phenomena. But from the educational point of view, which is now all-important, Herodotus, like some other ancient authorities, is in the best sense "written for our learning"; and it is as useless—and as easy—to pour ridicule on the "Father of History" for bad zoology or ignorance of hieroglyphics, as to attack the "Father of Science" on the ground of alchemy or misrepresentations of Aristotle in the *Novum Organum*. Students won't get any good out of a writer who is always being held up to them as an inaccurate ignoramus and plagiarist; but they *will* go far out of their way to make the best of him if they are left to discover that he was doing his best, and in fact better than the best of his age. It is after all to Herodotus himself in the long run that Mr. Griffith owes the discovery of the difference between hearsay and eyewitness—between Authority, in fact, and Archæology.

Mr. Hogarth's own article on pre-historic Greece gives a fair, though not very full account of the extraordinary advances which the last few years have seen in our knowledge of that part of the Mediterranean in which Aryan—and through it European—civilisation took its rise. But his eclectic attitude is not always quite definite or clear—that perhaps is still really out of the question—and he has suffered somewhat from his attempt to popularise, without the help of illustrations, a rather complex group of hypotheses in which almost every step depends upon the comparison of artistic styles. Professor Ernest Gardner has had an easy task, in summarising the principal excavations of the last twenty years on the greater sites of Greek antiquity, and has illustrated, as fully as his limits permit, the enormous change which has come over the whole cycle of Greek classical studies as the result of them.

Finally Mr. Haverfield's sketch of Italian archæology is slighter and more superficial than we should have expected from so learned an authority. True, the whole subject is less advanced, and has hitherto proved less fertile in brilliant and unexpected discoveries than the exploration of Greece; while the most valuable results

Digitized by Google

from Roman history have been gained for the most part by a minute classification of epigraphic formulae, which does not lend itself to popular treatment; but we would gladly have had more—even if it was only of "private interpretation"—on the eternal problem of the validity, actual or symbolic—of the "authority" preserved to us by Livy and Polybius, which deal with the beginnings of the Eternal City, and its peculiarly complex civilisation. But this and other omissions elsewhere which were perhaps necessary if the book was to be kept within the limits of a single volume, might well be amended, if in a second edition, which will doubtless be required before long, "Sacred" and "Profane" Authority could be accommodated with separate covers—and with a less egregious title.

J. L. M.

THE KINGDOM OF THE BAROTSI, UPPER ZAMBESIA. By Alfred Bertrand. Translated by A. D. Miall. London: Fisher Unwin, 1899.

The author gives us in the form of a diary an account of an adventurous exploration of a little known region in Africa. The map and illustrations are admirable, and the book contains here and there interesting notes on ethnology. The first appendix, in particular, which contains a summary of the sociology and customs of the Barotsi, deserves attention.

W. CROOKE.

THE RACES OF EUROPE. By William Z. Ripley, Ph.D. New York: D. Appleton and Co. Accompanied by a Supplementary Bibliography of the Anthropology and Ethnology of Europe, published by the Public Library of the City of Boston.

This is a magnificent contribution to the ethnology of Europe, and it is no exaggeration to say that its effect upon all sciences dealing with the race problems of Europe will be epoch-making. Professor Ripley has with indefatigable labour collected all available statistics of the physical characteristics of the races of Europe, and few will have an adequate idea of how much accurate work has been done by the anthropologists of Europe till they read this volume. But not only has the raw material been collected, it has been thoroughly analysed in the light of the latest views of anthropology; and the whole subject has been expounded in a lucid and picturesque style which will make it equally delightful reading to the general reader and the professional anthropologist. The maps are a special feature of this work. The geographical distribution of cephalic indices, pigmentation, stature and other ethnical criteria are shown for every country in Europe whenever statistics are available, and the relation of these criteria to the physical geography of the country is fully developed and expounded in the text. A very large number of typical portraits of the various races is also given.

Professor Ripley adopts the views of the modern school of anthropologists, who find among the peoples of Europe three principal race types, namely, the tall blond, dolichocephalic Teutonic race in the north; the dark, dolichocephalic Iberian or Mediterranean race in the south; and the brown, brachycephalic Alpine race in middle Europe. He also favours the view that the Teutonic type may be a variety of the Mediterranean, which has acquired its special characteristics by the long continued action of climate and selection. These views at present hold the field among European anthropologists, but, as Ripley himself points, there are many abnormal racial phenomena in Europe which this theory altogether fails to account

Digitized by Google

for. For example, the tall dark populations of the Balkan States and the tall dark people of the western highlands of Scotland represent combinations of physical characteristics which agree with neither of the three leading types of the orthodox school of anthropologists. That the study of such apparent anomalies will, in the near future, probably lead to a modification of the present views, is already indicated by the remarkable work of Deniker.

After dealing with Europe in general, Ripley devotes separate chapters to France and Belgium, the Basques, the Teutonic race, the Mediterranean race, the Alpine race, the British Isles, Russia and the Slavs, the Jews and Semites, Eastern Europe, and Western Asia. It is surprising how many cherished beliefs are demolished by a perusal of these chapters. For instance, many even who are *au fait* in the latest ethnological literature, will be surprised to learn that the Basques are not a pure representative of the Iberian race, but a mixture of a broad and a long headed race; that the true Finns are by race allied to the blond dolichocephalic Teuton and not to the dark brachycephalic Lapp; that the Turk is not Mongolian; and that no such type as the *Homo Caucasicus* exists in the region from which Blumenbach derived this name for the typical European.

The data collected by Professor Ripley bear every mark of careful ascertainment, and I believe that the utmost reliance can be placed on their accuracy. I do not share, however, his faith in the cephalic index as a test of race. He himself confesses that it fails in the British Isles, where the greatest uniformity prevails as to cephalic index, alongside of the greatest diversity of pigmentation. Boas, Macalister and other leading anthropologists have recently expressed disbelief in the cephalic index as the characteristic function of head measurements. There can be no doubt that the faith in this ratio has often been the cause of the failure to publish the absolute measurements of the head. Livi's magnificent volume on military anthropometry, for instance, does not contain any absolute dimensions of the head—only cephalic indices. If the cephalic index should be discredited by future investigation, the value of such work as Livi's will be greatly vitiated.

Ripley concludes his work with chapters on European origins, social problems, and acclimatization. The last chapter should be of great interest to a colonizing people like ourselves. The effect of change of environment on different races is fully discussed and some remarkable points brought out which have an important bearing on the future struggle of races for the possession of the earth.

The bibliography drawn up by Professor Ripley appears to be most exhaustive, and will be invaluable to students of European ethnology. His system of references to this, in his greater work by means of dates, is ingenious, and when once understood, very useful. J. G.

THE CULT OF OTHIN. An Essay in the Ancient Religion of the North. By H. M. Chadwick. London: C. J. Clay and Sons, 1899.

The controversy aroused by Professor Bugge and other scholars, who think with him on the origin of many of the northern myths, shows no sign of abatement. Mr. Chadwick's contribution is an attempt to answer three questions: 1. What were the characteristics of the cult of Odin in the north? 2. Is it approximately identical with that of the ancient (continental) Germans, or has it undergone substantial modifications in the north? 3. When was the cult introduced into the north?

It will be seen that his main theme is rather the worship than the myths of

Digitized by Google

Odin; but the interdependence of myth and ritual is now so completely recognised that it is no longer possible to discuss the one apart from the other.

The book is divided into three chapters, the first of which discusses the cult chiefly as revealed in sacrifice. In connection with this, the author examines the famous passage in the *Hávamál* upon which Professor Bugge so much relies. This was dealt with, but not in a very satisfactory manner, two or three years ago by Mr. Eiríkr Magnússon in his paper on "Odin's Horse, Yggdrasill," read before the Cambridge Philological Society. Mr. Chadwick rightly holds that the strophes 138 and 139 reflect primarily the sacrificial rite. He challenges, however, the assumption by Bugge and Golther that the sacrifice imputed to Odin was a self-sacrifice. Odin, he holds, is both the person sacrificed and the person to whom the sacrifice is offered, but there is no indication that the sacrifice was a self-sacrifice, and if not, the inference of Christian influence is unwarranted.

The traces of the cult of Odin on the Continent and in Britain are few; but I think Mr. Chadwick is right that (at least on the Continent) both sacrificial and funeral rites are to be found which can best be explained by reference to Odin-worship. Perhaps this may also apply to certain practices in warfare. Some of the references to England, however, seem more doubtful. The entry in the Saxon Chronicle, for instance, of the capture of Anderida, which relates that "all who dwelt therein were slaughtered" is a very sandy foundation for an inference that the conquered had been devoted by Ælle and Cissa, the conquerors, to Woden. The explanation of Coifi's desecration of the heathen temple by casting his spear into it, as recorded by Bede, is questionable too.

The problem of the date of introduction of the cult into Scandinavia is one of considerable difficulty. Having regard to the funeral rites ascribed in the Ynglinga Saga to Odin, Mr. Chadwick conjectures that cremation was an integral part of the cult. Now, cremation, it appears, was introduced into the north shortly before the end of the Bronze Age. This is placed by Montelius about B.C. 500. But Odin-worship was essentially that of a warlike people. Tacitus's account of the Swedes (if they are to be identified, as seems probable, with the Suiones) presents them as an essentially peaceful nation. The cult of Odin, therefore, cannot have been known to them before about 50 A.D., the approximate date of the historian's information. If, then, cremation were an essential part of the Odinic rites, Montelius's chronology must be challenged as placing the end of the Bronze Age too far back. This Mr. Chadwick proceeds to do, and comes to the conclusion that the Iron Age proper had not begun in Sweden before the third century A.D., and that the cult of Odin can hardly have been introduced into Sweden later than the end of the first century. He holds that the cult was a foreign one, but whence introduced he does not suggest. From the fact that Odin is described as essentially a god of the nobility, it would appear that his worship was that of a conquering caste,—Thor being the god (or one of the gods) of the people who were subdued. If these conclusions be correct, there is no room for the supposition that the principal myths relating to Odin have been seriously influenced by Christianity.

The northern mythology and worship seem to have been an amalgam of many creeds. The problems they raise are numerous and important. Mr. Chadwick has in this little book only dealt with a few of them; but, short as his monograph is, it is a real contribution to our knowledge of a subject full of interest for scientific enquirers into the history of Religion, as well as for those whose special business is with the history of the civilization and religion of the north.

E. Sidney Hartland.

Digitized by Google

THE NEGRITOS. By A. B. Meyer, M.D. Dresden: Stengel and Co., 1899.

This is a translation by Miss C. S. Fox of two chapters from the author's work on the Negritos of the Philippine Islands. It is a review of the chief authorities on the existence of the Negrito race in the Philippine Islands, Borneo, Java, Sumatra, the Andamans and Nicobar, India and Australia, and New Guinea. The general result is to show that the existing evidence is incomplete and unsatisfactory, and that much further inquiry is needed before the question of the ethnology of this part of the world can be finally settled.

W. CROOKE.

THE TEMPLE OF MUT IN ASHER. An account of the excavations of the temple and of the religious representations and objects found therein as illustrating the history of Egypt and the main religious ideas of the Egyptians. By Miss Margaret Benson and Miss Janet Gourlay. London: John Murray, 1899.

This is the result of three years' diggings in the Temple of Mut, near Karnak, undertaken by these two enterprising and energetic ladies, who may be said to be the first women who have had permission granted them by the Egyptian Government to make excavations on any site in Egypt, for which they are deserving of all praise as they appear to have conducted it very carefully.

In the course of the work they discovered some highly interesting statues and monuments, many very fragmentary. The most notable are those of Sen-Mut, the architect of the Temple of Dêr el Bahari, favourite and Chief Steward of the celebrated Queen Hatshepsut of the XVIIIth Dynasty; the statue of Mentu-em-hat, and the remarkable heads of the woman of the Saïtic period and the so-called Philistine.

The book is highly interesting and well got up, illustrated with photographs and plans. It is decidedly worth reading, although the shortness of the actual description of excavations is somewhat disappointing. The work contains several chapters upon the religion and history of Egypt during the period the Temple of Mut was flourishing, and is supplemented by a chapter by Mr. Percy Newberry, describing and translating the inscriptions from the monuments discovered.

F. G. H. P.

THE PHILIPPINE ISLANDS; a political, geographical, ethnographical, social and commercial history of the Philippine Archipelago and its political dependencies, embracing the whole period of Spanish Rule. By John Foreman, F.R.G.S. 2nd Edition. London: Sampson Low, Marston and Co., 1899.

This is a most elaborate account of a portion of the world which recent events render particularly interesting. It is well illustrated and supplied with an excellent map. It will long remain the standard account of the Spanish Dependencies in Eastern Asia. Mr. Foreman's account of the native races is disappointing, and in particular he has done little to throw light on the Negrito peoples.

W. CROOKE.

AMONG THE WILD NGONI. By Dr. W. A. Elmslie. Edinburgh and London: Oliphant Anderson and Ferrier, 1899.

This book serves a double purpose; it gives an account of the founding of several stations of the Livingstonia Mission in the northern part of British Central Africa, and at the same time briefly describes the natives themselves, their customs and

Digitized by Google

beliefs. The book is the more valuable from the length of time the author has worked in the district. Among the sections of greatest interest to the anthropologist is perhaps the history of the Ngoni pieced together from various native narratives. The author traces the reflux wave of the Zulu-Xosa group of Abantu from the borders of Natal. Driven before the victorious arms of Chaka they retired northward in several streams at short intervals of time, and founded warlike communities on the Zulu model, such as the Matabele in Mashonaland, the Ngoni to the west, and the Magwangwara to the east of Lake Nyasa and the Watuta, who reached as far as the Victoria Nyanza.

A fuller account than had previously been published in popular form is given of the native war dances, the *itshanusi* or medicine men, and the poison ordeal by drinking *muave*. It is to be hoped Dr. Elmslie will at some other time supply a fuller record of Ngoni customs, beliefs, and medical practice than was practicable in the limits of this book.

F. C. S.

VOCABULARY OF THE GUALLUMA TRIBE INHABITING THE PLAINS BETWEEN THE YULE AND FORTESCUE RIVERS, NORTH-WEST AUSTRALIA.

The following vocabulary, prepared by Mr. E. Clement, of an Australian tribe hardly if at all known from a philological point of view, is interesting. It may be hoped that before this language becomes extinct, the rules of inflexions and syntax, hardly touched on in the present paper, will be worked out. In the meantime it is to be noticed that words related to those of other Australian tribes at vast distances are to be found in the present vocabulary, connecting the Gualluma with other members of the Australian family of languages.

E. B. TYLOR.

Numerals:—

1, *Cŭnjĕriĕ* ("j" is pronounced as in English "jam").
2, *Cŭdārră* ("a" pronounced as in "America").
3, *Bŭrgŏ* ("u" pronounced as in "full").
4, *Cudarra-cudarra.*
5, *Cudarra-cudarra-cunjerie.*
6, *Māngā* (plenty) or *Mārrŭ* (plenty).
7, 8, 9, etc. } *Manga* or *Marru* ("u" pronounced as "oo" in "cool").

On the Upper Sherlock River I frequently heard *burgo-burgo* for 6, but not elsewhere.

Comparison:—

The comparison is formed by placing *mahma, more,* before the adjective as:

wābā, good.
mahma waba, better.
cŭngēră, high ("g" pronounced as in English "gate").
mahma cungera, higher.

There is no superlative.
Genders, none.
Cases, none.

Digitized by Google

naidyu, I, me, my ("ai" pronounced as "ai" in English "aisle," "yu" pronounced as in English "you").
naidyu walgai, I go (present).
naidyu bălllālyĕ walgai, I went (perfect).
I before go.
("YE" in *ballalye* is pronounced as "ju" in the German "*judus*," only shorter.)
naidyu munti walgai baiacca, I shall go to-morrow (future).
I sure go to-morrow.
naidyu munti buccundi, I am hungry.
I true hungry.
("i" in *munti* and *buccundi* pronounced as "i" in English "knit.")
naidyu ballalye buccundi, I was hungry.
I before hungry.
naidyu coboya wĕrēgŏ.
my son or boy ill.
("ya" in *coboya* is pronounced as the German "*jer*," only shorter.)
naidyu coboya ballalye werego.
my boy before ill.
Baiacca Willinbung walgai takelgo maiacca, Willinbung is going to get married.
fem. name
to-morrow Willinbung go get man.

There are no words for greetings. Distances are reckoned by pointing to sun or moon.

eūmbăi, hot.
mahma eumbai, summer.
njinda, you.
mōtō, cold.
mahma mōtō, winter.
naligoru, we, all.
taili, tongue (the final "i" pronounced as "i" in "knit").
nuta, nose ("u" as "u" in "full").
bola, head.
murra, finger.
bai, arm ("ai" pronounced as "ai" in "aisle").
yendi, forehead.
era, tooth ("e" pronounced as "e" in "debt").
wēāra, leg ("ēā" pronounced like "e" in English "we").
mambru, knee ("u" pronounced like "oo" in soon).
bulewake, thigh.
koruka, ear.
tola, eye.
ñjari, eyelashes.
parela, shoulder.
naki, neck.
karaki, collarbone.
kina, foot (the "i" pronounced like "ee" in "feet").
noruka, ankle ("u" pronounced as the "oo" in English "tool").
earka, fingernail ("ear" pronounced like "ear" in English).
cadarra, vein.
murra, blood.
coboya, boy.
mirga, girl.
kjandi, cough.
nimai, Java sparrow.
bābă, water.
bañama bāba, still or standing water.
wimbai bāba, running water.
manga or *marru*, plenty.
cobodja, little.
murriandi, quick.
murrawarra, quick.
ngami, slow.
bahmbă, to sleep.
warri, flies.

Digitized by Google

cuming, mosquitoes.
potcarry, hill kangaroo.
tangurra, emu.
walloo, snake.
wangalli, lizard.
bavangera, big lizard.
munda, stone.
yandaga or *arang*, sand.
corada, stick.
tandi, branch ("i" pronounced like "i" in English "knit").
gnalu, stomach ("u" pronounced like "oo" in "too").
nielu, navel.
mirrawai, married woman, wife.
gnara, husband.
njundi, dead.
palam, long time.
taura, fish ("au" pronounced like "ou" in "proud").
waiki, to swim.
molori, to dive ("i" pronounced as "ee" in "feel").
tarko, *parga* } tree.
culcara, hair.
wongulla, elbow.
currong, *yanda*, *parverri*, sun.
willera, moon.
binderi, *gnogo* } stars.
tura, wind.
yongo, rain.
naiguai, to eat.
bandelgo, to smell.
pehna, woodborer.
puree, sea ("ee" pronounced like "ee" in "feel").
cundarra, hunting spear.
magundu, fighting spear ("u" pronounced like "oo" in "tool").
panigo, to dance.
eromagai, to shout, to call.
cundigo, tired, stop.
njurra, camp.
tamarra, fire-wood.
cabraki, to bring, fetch.
murr, red.
yinda, black.
warruhma, ants.
wandi, male organ.
mendi, female organ.
bevi, breast ("v" pronounced as in Latin "vita").
ti, parents.
canerang, sister.
combinumarra, brother.
gnairo, to throw ("ai" pronounced as the "ai" in "aisle").
co ai, *cuckai* } come here.
pangarri, go away.
mirga or *mandiwanga*, tall.
cobodya, little.
candera, clouds.
gutawanna, beetle.
tamera, to roast.
nauwai, to see, to look.
walliwiddi, lightning. (Pronounced very rapidly, a beautiful word, I think.)
yindarra, thunder.
waruga, *warunga* } devil, evil spirit.
parni, to sit.
carri, to get up.
tama, to make fire.
mejagai, to drink.
cumbai, hot.
moto, cold.
wimbai, to run.
togai, to throw.
carakai, to spear downwards.
ngari, to lie down.
pani, to lie down.
cundarri, a duck.
currungullu, heart.
tambi, ribs.
morro, backbone.
kaun or *cabul*, skin.
wandi or *njanda*, tail.
carramarri, to fight.
munda, stone, hill.

Digitized by Google

tina, track.
pideda, white cockatoo.
wandiali cuckai, where do you come from?
mămă, father.
jimbu, nest.
wallaguru, feathers.
mangallah, bird-claw.
canaliwalli, butterfly.
mangula, child.
burruru, hair belt.
minnawango, centipede.
billago, red-breasted cockatoo.
nanga, mother.
kimbu, eggs.
perigalgu, claw of kangaroo.
mangangarri, to hop.
candi or *borulla*, stone knife.
maia, humpy or bush house.

ginda, charcoal ("gin" pronounced like "gin" in English).
djuno, enemy (pronounced like "juno").
mungurru, kangaroo.
diagalma, to open.
cadulgu, to spear.
bijagu, to bite
dagalgu, to catch.
werego, sick.
wanangurra, whirlwind.
peebun, Sturt's desert pea.
marben, passport.
coohu, yes (better spelled perhaps *cuhu*).
yongurru naidyu, give it to me.
ngani muna, how far?
far now.
naidyu mida waiya, I am not afraid.
Muira, Australia.
njudigalma, to kill.
cangarra walgai, to fly.
literally: top walking.
ginder, salt.
ēēba, ashes.
calga, roots.
gnarrangnarra, netting needle.
mida, no.
mida bulbi, I don't want it.
mida waiya, don't be afraid.
nungo, strong.

Male names.	Female names.
Williamarra.	*Wimeringo.*
Ginderubangu.	*Murga.*
Ginabi.	*Mindiyangu.*
Yani.	*Yerabangu.*
Kadjioringa.	**Cadji.*
Curraba.	
Williwilliringo.	
**Cunyin.*	
**Tollabong.*	
Nilirengo.	
**Mudgira.*	

* I could only ascertain the meanings of these four names:—

Cunyan, one who is asleep.
Mudgira, wild dog.
Tollabong, sharp eye.
Cadji, little spear.
Ginderubangu, has no doubt something to do with salt.

The children of the tribe become either—

Balliery.
Curramurrang.
Burong ("u" pronounced like the French "u").
or *Banniker.*

Digitized by Google

According to their parents, thus :—

Balliery father *Curramurrang* mother	child is *Banniker.*
Curramurrang father *Balliery* mother	child is *Burong.*
Burong father *Banniker* mother	child is *Curramurrang*
Banniker father *Burong* mother	child is *Balliery.*

Second generation :—

Balliery father *Curramurrang* mother	child is *Burong.*
Curramurrang father *Balliery* mother	child is *Banniker.*
Burong father *Curramurrang* mother	child is *Banniker.*
Curramurrang father *Burong* mother	child is *Balliery.*

etc., etc.

I have never been able to find the origin or meaning of these four names, but will try again on my next journey in that district.

CENTRALBLATT FÜR ANTHROPOLOGIE, ETHNOLOGIE UND URGESCHICHTE.
Edited by Dr. G. Buschan.

It is with much pleasure that we call the attention of our readers to the above excellent journal, which has now reached its fourth year of publication under the distinguished editorship of Dr. Buschan. It is published in quarterly parts, each of which contains an original article on some subject of general anthropological interest of from three to four pages in length. This is followed by a series of abstracts of some of the more important anthropological monographs of recent publication in different countries, followed by similar abstracts of papers on Ethnology and Primitive History. A short section is next devoted to the news of the day in anthropology, and finally a list of the various papers published on the subjects embraced in the title of the *Centralblatt* in the current literature of the year. Such a publication appearing every quarter is of great importance to anthropologists and greatly facilitates their researches. In the first place it is a useful index of what is being done in various parts of the world, while in the second place the short abstracts of more important papers indicates their scope; thus enabling an author, when preparing a paper on any subject, in a few minutes to find out whether there is anything appearing in the scope of his work which it is necessary for him to examine and refer to. When work has to be done at high pressure, this is a most valuable saving of time and trouble, likewise when the author is removed from easy access to the various libraries and scientific periodicals it is a great matter to be able to get such a list of references classified to hand. We hope therefore that our Fellows may not be slow to avail themselves of so valuable a help, and become subscribers for it, as it deserves every encouragement of anthropologists, and is thoroughly international in character.

J. G. G.

Digitized by Google

EAGLEHAWK AND CROW. A Study of the Australian Aborigines; including an Inquiry into their Origin and a Survey of Australian Languages. By John Mathew, M.A., B.D. London: David Nutt, 270–271, Strand. Melbourne: Mullen and Slade. 1899.

The Rev. John Mathew, the author of this work, is the writer of the paper on Australian Cave Paintings which appears in the *Journal of the Anthropological Institute*, vol. xxiii (1893). The title *Eaglehawk and Crow* is explained in some of the earlier pages of the book, where the author reviews some myths widely spread among the aboriginals in which either the eaglehawk or the crow, or both, figure as names given to tribes or divisions of tribes. He inclines to think that "the eaglehawk and crow represent two races of men which once contested for the possession of Australia, the taller, more powerful and more fierce 'eaglehawk' race overcoming and in places exterminating the weaker, more scantily equipped sable 'crows.'" He believes that the aborigines of Australia were Papuan and that they were the ancestors of the now extinct Tasmanians. But he also thinks that there is evidence of a Dravidian element which accounts for certain resemblances between Dravidian and Australian languages, and of a third and later Malay element. To the last-named race he is confident that the best Australian cave paintings are due, also the introduction of circumcision in the north.

The physical characters, dwellings, clothing, implements, food, government, laws, institutions, customs, ceremonies, art, superstitions and religion of the various tribes are discussed. Mr. Mathew thinks that the linguistic evidence points to the conclusion that the migration of the aboriginals was "from the north-east, south-eastward on the east coast, southward, south-westward and westward elsewhere." Much space is devoted to the characteristics of the languages spoken by the aboriginals, both as regards their structure and affinities and the local variations in the terms most in common use. Indeed, linguistic evidence occupies about half of the whole book, and constitutes the leading feature of Mr. Mathew's latest contribution to our knowledge of things Australian. T. V. H.

NEW EDITION OF "NOTES AND QUERIES ON ANTHROPOLOGY."

By the time this *Journal* is in the hands of our readers, the third edition of *Notes and Queries on Anthropology* will have appeared. This work is now so well known to anthropologists and has proved itself of so much value to travellers and others as a guide to anthropological research that it is almost unnecessary to more than mention a few facts regarding it. A new edition has been rendered necessary by the second edition having become exhausted in less than half the time required for the distribution of the first edition. The third edition, like the previous, has been produced under the editorship of Dr. J. G. Garson and Mr. Charles H. Read, who have taken the opportunity of having the various sections thoroughly revised and in some instances rewritten. Although a good deal of new matter has been added, the size of the book has not been materially increased, the text of this edition being only ten pages more than that of the former edition. Several new illustrations have been added to the first part of the work which deals with anthropography or, as it is sometimes inappropriately termed, the physical characters of man. This part of the work also shows most changes in its revision. The instruments for taking measurements with have been improved and modified in the directions which experience has shown to be desirable. A description has been given of the photographic outfit required for taking anthropological portraits, with directions for its use, and added to the general

Digitized by Google

section on photography, which has been entirely rewritten. Modifications have been made in the directions given for recording various observations with a view to making them more precise and more readily understood. In the instances where advancing knowledge has modified or altered the views previously held, or shown that other observations are required, the sections so affected have been rearranged to meet the equirements of the subjects of which they treat.

By arrangement with the British Association for the Advancement of Science, under whose auspices the work has been produced, the Anthropological Institute will be responsible for the publication and distribution of the new edition. To the Secretary of the Institute, 3, Hanover Square, London, W., should be addressed all orders for it, accompanied by a remittance of 5*s.* per copy, except in the case of members of the British Association and of the Anthropological Institute, to whom it will be issued on personal application at the above address at the reduced price of 3*s.* 6*d.* J. G. G.

ANTHROPOLOGY AT THE BRITISH ASSOCIATION. Dover Meeting: September 13th to 20th, 1899.

The Anthropological Section met at Dover, in the Rifle Volunteer Hall, and was fairly well attended, considering the small scale of the Dover Meeting. Forty-one papers and reports were presented, many of which were of more than average value.

The results of the Dover Meeting again indicate the necessity of more careful revision of papers presented, with a view to check diffusiveness and illogical argument on facts, the accuracy of which it is the duty of the officers of the Section to check. In future it will be incumbent on the Secretaries to enforce the rule of the Association, which requires that all papers be submitted on or before the first day of August to permit of the needful revision.

Readers of papers may also be reminded that the effect of many communications is impaired by the inaudible utterance of readers and speakers. The room at Dover was exposed to interruption from outside, but it would have been possible to obviate this by more attention to distinctness of delivery.

The President's address will be found printed in full in the *Proceedings of the British Association* (Dover, 1899), and in *Nature*, October, 1899, No. 1562. In the summary of the work of the Section which follows, a full abstract is given of those papers and reports only which are not immediately to be published *in extenso*. In all other cases a reference is given to the Journal or periodical in which the full text of the paper will be found. The papers are classified below in the order of their subject matter.

ORGANISATION AND METHOD.

FINGER PRINTS. HENRY.

Mr. E. R. Henry, C.S.I., described his System of classifying Finger Prints as evidence in identification. He referred to the importance of fixing human personality so that no efforts made to confuse it subsequently may prove availing. Finger prints, error in transcribing or recording, the "Personal Equation" error is reduced to a minimum. Taking the impressions of all ten digits occupies only a fraction of the time required for measuring, while search is more exhaustive and many times more rapid. This new system has been introduced on a most extensive scale throughout British India, where the postal, survey, registration, medical, pensions, emigration, police, opium, and other great departments have adopted it, and the Legislature has recognised it by passing, with the strong approval of all representative bodies consulted,

Digitized by Google

being absolute impressions taken from the body under conditions which eliminate an Act to amend the Law of Evidence so as to make relevant the testimony of finger print experts.

The main difficulty hitherto experienced had been that of providing an effective system of classification. But this difficulty has now been overcome.

Mr. Henry's paper will be printed in full in this *Journal*.

A committee of the British Association has been appointed to inquire into this method of identification by finger prints: *Chairman*, Mr. Francis Galton; *Secretary*, Mr. G. L. Gomme. It should report to the Bradford Meeting in 1900.

FINGER PRINTS. GALTON.

Mr. Francis Galton, F.R.S., read the following paper on the "Finger Prints of Young Children":—

At the time when I published my book on *Finger Prints*, and subsequent works on the same subject, no material existed for determining the age at which the patterns of the ridges on the fingers and their numerous details became first established. The ridges were known to be traceable in some degree long before birth, but it was not known whether they had acquired, even in early childhood, that strange complexity of distribution which I showed to be permanent from youth upwards. The wish to complete my work by investigating this interesting physiological point was sharpened by a request for an opinion on the following case. The police authorities in —— (I will not say what country) received information that a baby, who was heir to a great title and estate, might be kidnapped for the sake of extorting ransom. Such cases have occurred in history, and it is needless to insist on the miserable doubts and legal difficulties that would arise if a stolen infant should be restored after the lapse of some time without satisfactory identification. I was asked whether prints of the fingers of a baby would serve for ever afterwards to identify him, and to prove that he was not a changeling.

An American lady—Mrs. John Gardiner, of Boulder, Colorado—kindly volunteered to collect finger prints of infants for me. The following remarks are confined to those of her own child Dorothy, whose fingers she printed every day after that of her birth for a short time, then less frequently, and afterwards yearly, the child being now $4\frac{1}{2}$ years old. By selecting the best of the numerous specimens of the earlier dates, I compiled three sets of all the ten fingers. In the first set the age of the child lay between 9 days and a month. In the second, between 1 month and 6 weeks; in the third, between 5 and 7 months. In addition, I have a fourth set taken at 17 months, a fifth at $2\frac{1}{2}$ years, and a sixth at $4\frac{1}{2}$ years.

It is easy to those who have learnt the art, and who have the necessary materials, to print with sharpness the fingers of children who have attained six years of age or upwards; but it is exceedingly difficult to print the fingers of babies. Far more delicate printing is needed on account of the low relief of the ridges and the minuteness of the pattern. At the same time, babies are most difficult to deal with, the persistent closing of their fists being not the least of the difficulties. The result is that many undecipherable blurs are made before one moderate success is attained, and, at the best, the print is made by a mere dab of the finger, rolled impressions being practically impossible. Consequently the first four sets are all more or less blotted, and none show more than a small part of that surface which it is desirable to print.

The fifth and sixth sets are clear though pale, for it was necessary to spread the ink very thinly to avoid blots; otherwise they are perfectly suited for comparisons. The

Digitized by Google

two sets agree in every detail, and show the same order of complexity that is found in the ridges of adult persons; so, subject to the possibility of some minute after-change, I should infer that the print of a child's fingers at the age of $2\frac{1}{2}$ years would serve to identify him ever after. It will be interesting after the lapse of some years to ascertain whether this is the case with Miss Dorothy Gardiner.

The first four sets are much more difficult to deal with. I have scrutinised them, and compared them several times with the last two sets and with one another, and my conclusions are as follows:—

(1) The *type* of the pattern is never doubtful to a practised eye. To an unpractised eye the result of a slight twist of the finger at the moment of printing, which gives a specious air of circularity, might convey the false impression of a whorl to what was really an arch or a loop. (2) The character of the core is defined within narrow limits, but not always accurately. Thus, in one instance, the core of a loop in the $2\frac{1}{2}$ and $4\frac{1}{2}$ year sets was a clear "staple." At 17 months the staple was connected to the curve next above it by a small isthmus; in babyhood the staple and the ridge were joined—whether by a blot or in reality I cannot say. (3) A similar absence of distinction between ridges that are afterwards clearly separated is often found near the V point. It is thus impossible to count the number of ridges with accuracy that lie between the core and the V, and the entry has often to take such a form at 9 + ? the ? proving to be any number between one and perhaps eight ridges. It is, however, a great point to be assured that the real number is *not less* than 9. (4) The doubt (as I pointed out in my book) which is always attached to the exact way in which a new ridge arises is greatly increased in these prints. No weight should be assigned to the character of the junction or ending, but only to the fact that somehow a new ridge has become interpolated.

The study of these prints is an excellent discipline in the art of decipherment. I have counted sixty-eight details in the prints of these ten fingers that can be identified throughout all six sets, unless obliterated in some one of them by a blot. In the majority of cases the identity is unquestionable; in the others it may be trusted within narrow limits. I have, therefore, little doubt that the prints of all ten fingers of a baby, if taken as clearly as those I have dealt with, would suffice for after-identification by an expert, but by an expert only.

It should be added that I have had as yet no opportunity of taking finger prints from infants who are two or even more months younger than babies ordinarily are at the time of their births—I mean such as are now successfully reared in warmed glass cases. These premature infants are passive, and in that respect easy to deal with, but they are tiny creatures who require great tenderness in handling. I think that the impressions most likely to succeed would be those that their greasy fingers might leave on a highly polished metal plate, to be afterwards photographed under suitable illumination.

GENEALOGICAL STATISTICS. RIVERS.

Under the title "Two New Departures in Anthropological Method," Dr. W. H. R. Rivers described his procedure in collecting, social and vital statistics by means of genealogies during the Cambridge Expedition to Torres States (*vide* below).

In Murray Island and in Mabuiag, genealogies going back for three to five generations were compiled, which included nearly all the present inhabitants of those islands. In working out the genealogies, the only terms of relationship used were *father*, *mother*, *child*, *husband*, and *wife*; and care was taken to limit them to their English sense. The trustworthiness of the genealogies was guaranteed by the fact

Digitized by Google

that nearly every detail was derived from two or more sources. It was found that these genealogies afford material for the exact study of numerous sociological questions. Thus the system of kinship can be worked out very thoroughly by finding the native terms which any individual applies to the other members of his family; so that the subject can be investigated entirely by concrete examples, and abstract terms of relationship derived from European sources entirely avoided. The genealogies also provide a large amount of material for the study of totemism, marriage customs, naming customs, etc. By this method also vital statistics can be collected of the past as well as of the present. The genealogies collected in Torres Straits supply dates for the study of the size of families, the proportion of the sexes, the fertility of mixed marriages, etc. The method has the further advantage of bringing out incidentally many facts in the recent history of the people, and of giving insight into their views on various subjects. It is also eminently adapted to bring one into sympathy and friendly relations with natives.

A small amount of work on these lines was also done with natives of Tanna and Lifu living on Mabuiag: enough was done to show that the method is readily applicable to other Melanesian populations, and it is hoped that it may be found to be capable of wide application.

[The other "new departure" described by Dr. Rivers is the method of determining skin colour, summarised below under that heading.]

PERSONAL EQUATION. GARSON.

Dr. J. G. Garson discussed the limits of Personal Equation which are admissible in current systems of anthropometric identification.

PHOTOGRAPHS. BRIT. ASS. COMMITTEE.

A Committee was appointed by the British Association for the Advancement of Science in September, 1898, to provide for the "Collection, Preservation, and Systematic Registration of Photographs of Anthropological Interest."

A similar Committee on Geological Photographs was appointed in 1889, and has organised the valuable collection preserved in the Museum of Practical Geology. The Royal Geographical Society has gradually collected a large number of geographical photographs, many of which are also of anthropological interest. More recently the Hellenic Society has announced a large special collection for the use of students of the topography, civilisation, and art of Greece; and the Anthropological Institute possesses a considerable collection of photographs, which have been lately mounted and classified, and has permitted the registration of these in the list of the new Anthropological Photographs Committee.

The considerations which led to the appointment of this Committee are briefly as follows:—

(1) A very large number of anthropological phenomena can only be studied in the field, or by means of accurate reproductions; but the latter are in many cases difficult to procure, except where typical examples have been regularly published; and even then it is frequently of advantage to be able to acquire separate copies of single plates or illustrations, for purposes of comparison, without breaking up a collection or a volume.

(2) On the other hand, most travellers, collectors and museum officials find it necessary to make many photographic negatives in the course of their own work, for which they themselves have no further use, but which they would gladly make accessible to other students, if any scheme existed by which this could be done

Digitized by Google

without trouble to themselves. Such negatives also accumulate, and take up valuable space, and are very liable to damage through neglect.

(3) Further, though many professional photographers in remote parts of the world have made admirable use of their opportunities of recording native types, customs, and handiwork, there has hitherto existed no single record of what has been done in this direction, with the result that valuable collections have remained practically inaccessible to those in whose interest they have been made. In the case of the Hellenic Society, already cited, the inclusion, in the reference collection, of selected prints from the negatives of professional photographers abroad has been found to be of great advantage to teachers and students, who consult it with the view of choosing the best representations to add to their own series.

What appears therefore to be required is, in the first place, a register of the photographic negatives which can be made generally available, illustrated by a permanent print from each, preserved at an accessible centre; together with an arrangement by which properly qualified students may be enabled to have duplicate prints made from them for their own use, at a reasonable price. In any such scheme it is understood that the copyright, for purposes of publication, remains with the owner of the negative, and that all duplicate prints distributed under this arrangement are subject to that qualification.

In establishing such a Register and Collection of Anthropological Photographs, the Committee invites the co-operation of all owners of suitable photographic negatives, who are requested to submit for registration one unmounted print from each negative (which will be mounted by the Committee and preserved either at the office of the British Association, or in some central and accessible place), together with a full description of the photograph. The latter should state—

(1) The subject of the photograph, and the place where the original subject is (or was) to be found, the date when the photograph was taken, and name of the person who took the photograph.

(2) The name and address of the owner of the negative.

(3) The whereabouts of the negative itself: *i.e.*, whether it is retained by the owner at his own address, or deposited with a professional photographer at an address named, or with the Committee.

(4) The terms on which prints, enlargements, and lantern slides will be supplied when ordered through the Committee.

The Committee has made arrangements for the storage and insurance of any negatives which may be deposited on loan; and for the production of prints and lantern slides from them to order; and a number of negatives have already been so deposited.

The Secretary of the Committee, Mr. J. L. Myres, Christ Church, Oxford, will be glad to supply forms for the registration of negatives, and any further information which may be required.

The Committee has been reappointed for the year 1898–9, with a small grant for the purpose of mounting the photographs already given or promised; and it is hoped that it may be possible to publish a first list of photographs in the next report.

ANTHROPOMETRY.

EGYPT. MACIVER.

Mr. D. MacIver, B.A., gave examples of the ways in which anthropometry may aid archæological investigation, and pointed out the unusually favourable conditions for such anthropometrical work which exist in Egypt. He gave a summary of the

Digitized by Google

series of Egyptian measurements at present available, of the difficulties which have arisen in their interpretation, and of some new methods of publishing measurements specially designed to meet them. Details were given of three important series of specimens from Egypt, viz.:

(1) Prehistoric Series; from the excavations of 1898–9.

(2) VI. to XII. Dynasties; from the excavations of 1898.

(3) XII. to XVI. or XVII. Dynasties; from the excavations of 1898–9.

These series were considered (*a*) separately, with the object of ascertaining the race type represented in each; (*b*) in comparison with one another, to show their affinities and differences. The paper concluded with a note on the light which such comparison throws on Egyptian history.

[To be published in full in this *Journal*.]

EGYPT. MACALISTER.

Professor A. Macalister, M.D., F.R.S., commented on the measurements of 1,000 Egyptian Crania.

MORIORI. MACALISTER.

Professor A. Macalister, M.D., F.R.S., exhibited an example of an anomalous atlanto-occipital joint in a Moriori skull.

NEW HEBRIDES. MACALISTER.

Professor A. Macalister, M.D., F.R.S., exhibited an example of a pre-basioccipital bone in a New Hebridean skull.

SCHOOL CHILDREN: ABNORMAL. BRIT. ASS. COMMITTEE.

The Committee "On the Mental and Physical Deviations from the Normal of Children in Public Elementary and other Schools" was appointed in 1893, at the suggestion of the late Sir Douglas Galton, and has worked in conjunction with the Childhood Society.

The Fifth Report (1897) contained a catalogue of 1,120 exceptional children (597 boys; 523 girls), forming about 1 per cent. of the children in public elementary schools. These 1,120 cases were arranged in primary groups showing the class of defect indicated: namely, A. Developmental Defect; B. Abnormal Nerve-signs; C. Low Nutrition; D. Mental Dulness.

In the Sixth Report (1898), the correlation of classes of defects in these children was shown to be very high. They have a much greater tendency than average children to become delicate in an adverse environment, especially the girls. This, as might be expected, is most marked in those under seven years of age.

In this Seventh Report (to be printed in full in the *Proceedings* for 1899), the same children are arranged in a table arranged to show the proportion of primary groups, showing only one class of defect, to the compound groups in which the other classes of defect are present together with the primary symptom.

The defects shown thus suggest the need of management and care in training stage by stage, with the object of improving each phase of mental ability, and removing individual disabilities.

The Committee has been reappointed, with the addition of Dr. W. H. R. Rivers, and with a small grant to carry out further statistical inquiries.

Digitized by Google

SKIN-COLOUR. RIVERS.

Dr. W. H. R. Rivers, described the methods employed during the Cambridge Expedition in Torres Straits, to determine the colour of the skin quantitatively. Numerous records were taken with Lovibond's Tintometer, and these were fairly satisfactory, although the dark skins of the natives were found to be difficult objects to match exactly.

More satisfactory matches were made with the colour-top; but the latter method is open to the objection that the coloured paper discs used on the top are liable to fade, while the glasses used in the Tintometer have the advantage of being constant. Records were taken of the colour of various Melanesians and Polynesians, as well as of the two races of Torres Straits. The following match of the skin of the *Mamus* or chief of Murray Island is given as an example of the colour-top results.

Orange	15°
Yellow	6°
White	7°
Black	332°
	360°

ARCHÆOLOGY.

ALPHABET. FLINDERS PETRIE.

[WITH PLATE XXVIII.]

Professor W. M. Flinders Petrie presented a *resumé* of recent investigations into the sources of the alphabet, as follows:—

About ten years ago there were first noticed signs upon Egyptian pottery of 1400 and 2500 B.C., which were closely like those of the Greek alphabet. I ventured on a supposition that they were an early stage of the alphabet; but, rather than allow of the existence of an alphabet before 800 B.C., most scholars tried to believe that these signs were derived from Egyptian hieroglyphics

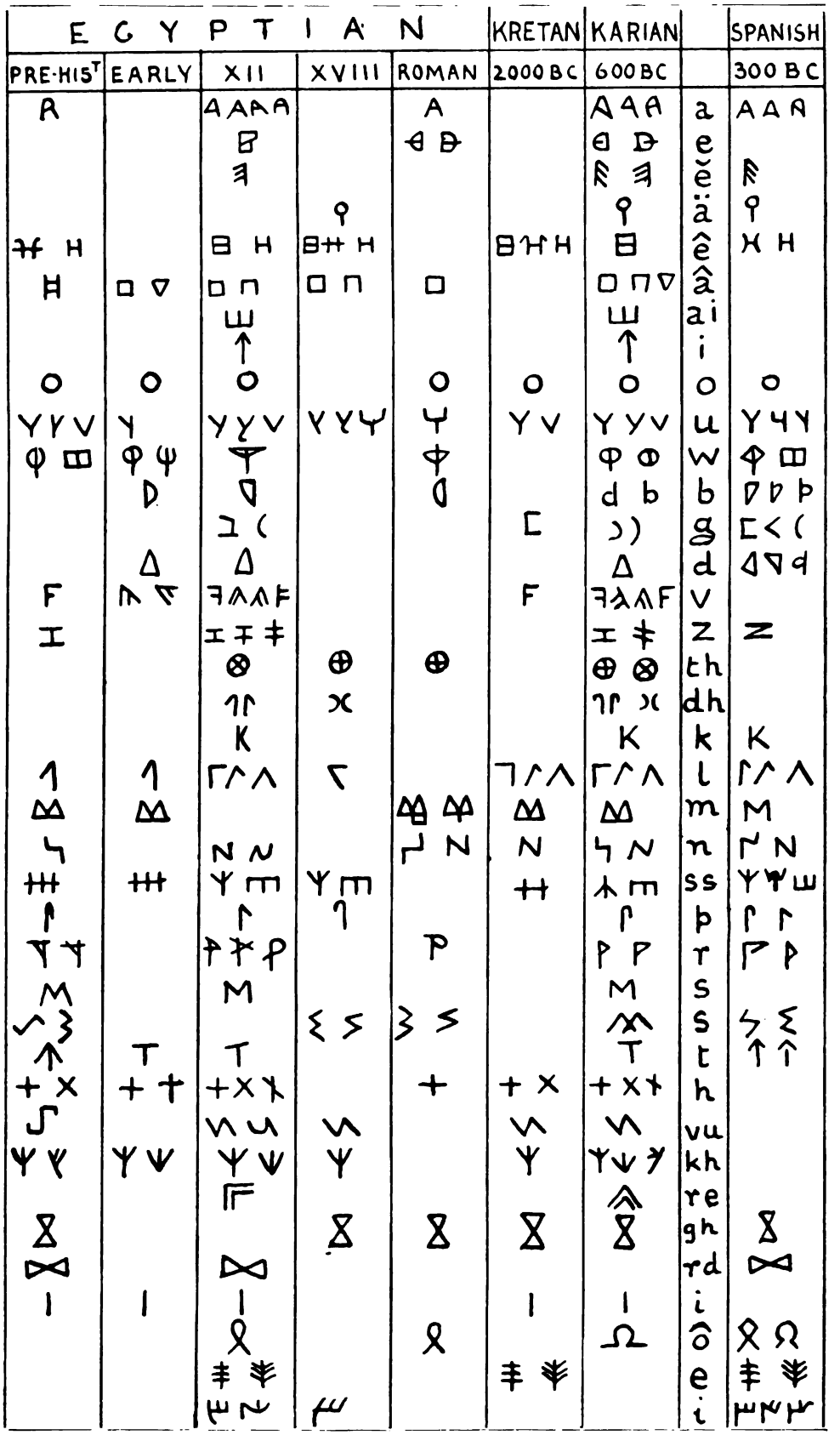
The next year this same system of signs was much further disclosed, and I could draw up a list of 120 signs, mostly in use as early as 2500 B.C. And here the subject rested for some years.

When about five years ago the prehistoric age of about 5000 B.C. in Egypt began to be disclosed, again we found a large number of marks upon the pottery, many of them identical with those already known to be some two or three thousand years later. As the hieroglyphic system was not yet in the land, this discovery removed these signs altogether from the possibility of being degraded hieroglyphics.

Then a year or two ago Mr. Arthur Evans showed the existence of a system of signs in Crete, which are largely like those already found in Egypt.

The next step is the collation of the longer editions of the Greek alphabet with these signs. In the Karian and Celt-iberian alphabets or syllabaries we have no less than 43 values in place of the 26 preserved in the Greek alphabet; and these 43 values are represented by about 60 different signs. Many of them are therefore of the same value, but they probably represent different forms gradually reduced to equal values. Hitherto it has probably been thought that these barbarous Greek alphabets deserve no special attention. But when so far apart as Karian and Spain we find close similarity in the forms, and many connections with the Italic as well as Greek alphabets, it becomes at least an open question if we are not in presence of an earlier and more extensive alphabet or syllabary. To avoid the defining whether

Digitized by Google



Digitized by Google

Digitized by Google

these signs represent a single letter or a syllable it may be best to speak of them for the present as a *signary*, or collection of signs.

On comparing then this signary with that found in Egypt no less than 44 of the 60 signs are known there. If we further extend the Mediterranean signary by the signs found in Crete, we find 56 signs in use both in the Mediterranean and in Egypt.

It is not too much therefore to say that we are in presence of a widely-spread and long-lasting system of signs, or signary, common to the Mediterranean from Spain to Egypt.

In what way can we understand this and connect it with what is otherwise known of the history of the alphabet? I venture to give an outline of what may be tested as a working theory to connect all these facts together.

As early as 5000 B.C., some trade existed around the Mediterranean, as proved by imports into Egypt. At that time the signary was beginning its course, some 40 signs already having been found of that age; and these signs are likely therefore to have been carried from land to land. The firm position of a similar signary in Syria and Arabia points to its being established there before the rise of the powerful hieroglyph system of Egypt. That system seems to have been thrust in, and so to have divided the Arabian and Mediterranean branches of the signary, which were later divided also by Hittite hieroglyphs and Babylonian cuneiform.

The signary continued to amplify and develope, held together a good deal by intercourse, but with much variation in different lands. By 2500 B.C. it contained over a hundred signs in its Egyptian form, and over thirty signs are already known in the Cretan form.

The great systematising force which gave it a unity unknown before was the application of these signs as numerals by the Phœnicians; nine were appropriated to the units, nine to the tens, and nine to the hundreds. This system was entirely Oriental, and even in late times of coinage it was scarcely ever used in Europe. But once having been adopted by the leading commercial nation the systemised order became enforced on all the Mediterranean. The other signs which did not form part of it dropped into the background; and we only have some twenty or thirty of them surviving in the less civilised regions of Karia and Spain. This view exactly explains the otherwise puzzling phenomena of the early Greek alphabets. There is seen the most rigorous order of letters, and yet in most of the letters great confusion as to the forms. The pre-existing signaries in the various lands and tribes did not easily fall into line, when the numerical basis of order sprung into use, and it took some centuries for them to become unified. How impossible this would be on the old view that all Greece took over a compact and complete alphabet ready formed by the Phœnicians!

We stand therefore now in an entirely new position as to the sources of the alphabet, and we see them to be about thrice as old as had been supposed. That the signs were used for written communications of spelled-out words in the early stages, or as an alphabet, is far from probable. It was a body of signs, with more or less generally understood meanings; and the change of attributing a single letter value to each, and only using signs for sounds to be built into words, is apparently a relatively late outcome of the systematising due to Phœnician commerce.

This notice is by no means an account of the subject, nor does it profess to give the evidence. As yet we need far more material and research before the true meaning is seen. But this is only a bulletin to report the accumulation of intractable facts, and to show what is the most likely connection between them.

Digitized by Google

Table of Signaries.

This table shows five periods of the Egyptian signary, (1) prehistoric, (2) the early dynastic, (3) the XIIth dynasty, (4) the XVIIIth dynasty, and (5) Roman collected by the writer. The Kretan signary is that collected by Mr. Arthur Evans. The Karian is that collected by Professor Sayce. The Spanish is the well known Celtiberian alphabet of inscriptions. Only those Egyptian and Kretan signs are shown which seem related to the Karin and Spanish alphabets; there are about twice as many signs found in Egypt, which survive only in Krete, or seem to have been lost altogether in the West. The values given are only those of the Karian and Spanish; no values are known for the Egyptian and Kretan signs independently of this comparison. Some of these signs appear also in the Cypriote and Libyan alphabets; but they have much less connection as a whole with the Egyptian, and as the values here are different from those in Cyprus and Libya it is safest to rely only on the fuller signaries of Karia and Spain.

COPPER CELTS: IRELAND. COFFEY.

Mr. George Coffey presented analyses of Copper Celts, which, though rare compared with those of bronze, have been found in considerable numbers in Ireland. Thirty specimens are described or mentioned in the Catalogue of the Museum of the Royal Irish Academy, published in 1861. The Academy's Collection (now in the National Museum, Dublin) at present numbers eighty-two examples.

Copper celts are not confined to any particular district: examples are recorded from the counties of Donegal, Londonderry, Antrim, Cavan, Mayo, Galway, Louth, Tipperary, Waterford, Cork—localities embracing the extreme north and south, and east and west of the island.

One specimen was analysed by J. W. Mallet in 1853: it gave copper, 98·74; tin, 1·09, *Trans. R.I.A.*, vol. xxii.

During the present year Mr. J. Holmes Pollok, Royal College of Science, Dublin, kindly analysed for me eight additional specimens as follows:—

—	Londonderry.	—	Cork.	Galway.	Tyrone.	—	Waterford.	—
Reference	W. 3	W. 17	1881/136	1874/38	1897/112	1896/7	W. 10	1875/20
Density	8·833	8·698	8·430	8·749	8·862	8·811	8·987	8·705
Copper	98·43	96·75	98·71	97·68	97·25	97·17	96·46	98·24
Arsenic	·76	1·35	·18	·76	1·56	1·86	Trace	·13
Tin	Trace	·50	·10	·79	·51	·27	·05	·83
Silver	·25	·14	·13	·18	·25	·11	—	·07
Lead	·05	·46	·07	—	·17	·17	2·74	·12
Zinc	—	—	—	·44	—	—	—	—
Nickel	—	—	—	—	—	—	·21	—
Iron	—	·07	—	—	·10	—	·25	—
Total ...	99·49	99·27	99·21	99·85	99·84	99·58	99·71	99·39

The above analyses are fairly in line with analyses of copper celts from other parts of Europe, with the exception of W. 10. This celt is one of the best finished

Digitized by Google

copper celts in the collection; the metal is, however, very soft and hardly serviceable. It is remarkable for the almost total absence of tin (0·05) and the high percentage of lead (2·74). There is not evidence to show whether the presence of the lead is intentional or accidental. It was found at Tramore, county Waterford, a rich copper district. Numerous lodes of copper and lead are exposed in the cliffs of this locality, and extensive remains of ancient workings have been found in a promontory near Tramore.

The classification of the copper celts by metal is confirmed by type divisions. The copper celts are invariably of the plain flat type, without ornament, and in no instance showing even rudimentary stop ridges. Ten specimens closely resemble common forms of Irish small stone celts. Some of these might be regarded as ingots, but in four instances they have been ground to an edge for use. The examples of developed metal form are in general ruder and heavier than bronze celts. In some cases the rough surface marks of casting have not been removed, but in many instances these celts show traces of having been rubbed down over the body of the celt, after the manner of stone celts. Celts of the developed copper form can be classified under two main types.

1. More or less V-shaped; flare of cutting edge wide compared with length of celt, leading to plain bronze celt of type (Evans, Fig. 28, and Wilde, Fig. 247).

2. Cutting edge narrow compared with length, and in some instances nearly semicircular; sides more or less parallel, leading to long, slender, plain bronze celt of type (Evans, Fig. 33). In several instances types 1 and 2 cross. In both types the butt end, in the majority of examples, is thick and squared off, showing a quadrangular section. As the types approach those of the bronze celts a thinning off of the butt end is noticeable.

The copper celts appear, therefore, to represent, apart from metal, a transition from stone to bronze types, and can be arranged in series showing development of form from stone to bronze.

From the preceding facts it would appear reasonable to conclude that, prior to a knowledge of bronze, copper was known and used for cutting implements in Ireland.

This statement is supported by a find of three copper celts, a copper tanged knife and three copper awls, all found together at Kilbannon, county Galway (Academy Collection). One of the celts is included in the eight analysed by Mr. Pollok, 1874: 38. All these objects seem to be copper, and agree most closely in the appearance of the metal, as if made from the same piece. The awls are of early type, pointed at both ends and without shoulders, and the knife also appears to be of an early type.

In the discussion which followed :—

Sir John Evans laid stress on the importance of these analyses which bear out the evidence of the forms of the implements, though paucity of tin does not in itself prove that an implement is of a period intermediate between Stone and Bronze Age. Such implements of unalloyed copper (which are peculiarly frequent in Ireland) are found to have been cast in open single-valve moulds, and that their cutting has been renewed by hammering, with the result that the edge is found expanded laterally, and even recurved into volutes.

FIBULÆ: NORTH AFRICA. EVANS.

Mr. Arthur J. Evans, M.A., F.S.A., pointed out the importance of the "Occurrence of 'Celtic' Types of Fibula of the Hallstatt and La Tène Periods in Tunisia and Eastern Algeria."

In the course of a recent journey through Tunisia and Eastern Algeria, the

Digitized by Google

author found repeated evidence that a form of "Late Celtic" fibula, answering to a well-known "Middle La Tène" type of continental archæologists, was in use among the ancient Numidians. Three examples of this were described; two from near Constantine (the ancient *Cirta*), and one from a dolmen near El-Kef (*Sicca Venerea*). The author traced the origin of this type in the lands about the head of the Adriatic, and its subsequent diffusion on European soil. Attention was called to the new materials for the chronology of this and other allied forms, supplied by Bianchetti's excavations in the Gaulish cemeteries of Ornavasso near the Lago Maggiore, where a large series of tombs were approximately dated by the presence of coins.

The author also described some examples of earlier fibulæ found at Carthage, and in a dolmen near Guyotville in Algeria. Two of the forms are parallel to those found in the early cemetery of Fusco near Syracuse, and may have been due to the same Corinthian influence which during the sixth, seventh, and eighth centuries seems to have been predominant at Carthage itself. Another Carthaginian fibula is identical with a Hallstatt type, and is the prototype of the "crossbow" form so widely distributed throughout the north, when it gave birth to a long succession of derivative forms reaching down in Gothland and elsewhere to mediæval times. In the case of both the earlier and later African examples there is thus an indication pointing to the ancient course of the amber trade by the Adriatic coast. The appearance of Celtic types of fibula among the Numidians finds its complement in the discovery of large hoards of Carthaginian and Numidian coins on the transit line of this commerce between the Save and the Adriatic. Attention was further called to the appearance of "Late Celtic" forms of Fibula in the Carthaginian Dominion of Western Sicily.

In the discussion which followed:—

M. Paul Pallary, of Eckmühl, Oran, laid stress upon the wide range of influence of the Hallstatt civilisation, and also on the historical continuity of Berber civilisation down to, and beyond, the Roman conquest of N. Africa. He inquired whether any other part of the tomb furniture of the dolmen near El-kef had been preserved. Mr. Evans replied that no record remained of anything but the fibula.

M. Bosteaux-Paris, Mayor of Cernay-les-Reims, commented upon the types of fibulæ shown by Mr. Evans, in relation to the types which are characteristic of the Haute Marne area.

M. E. Fourdrignier, of the French Commission of Megalithic Monuments, emphasised the distinct character of the *type Marnienne*, which is different from, and prior to, that of the civilisation of La Tène; and is marked by the presence of objects of coral, by the use of chariots, and by the absence still of coined money. He suggested an ultimately Scandinavian origin for the whole group of civilisations under discussion.

LAKE VILLAGE: GLASTONBURY. BRIT. ASS. COMMITTEE.

The portion of the site excavated in 1899 is situated in the centre and on the west side of the village, and includes dwelling mounds and the ground round them. One of these mounds (P P) contained no less than ten superimposed hearths, together with a floor of rushes, some well-preserved hurdle-work, a finely turned wheel-spoke, and a whole wheel cut from the solid, and 15 inches in diameter. Another mound (E E) contained a human skull, and a number of sling-pellets of baked clay; and another (C C) had peculiar depressions excavated in the floor, and lined with baked clay.

To the report are appended the analyses, by Dr. J. H. Gladstone, of a number of metallic objects, including a bronze unusually rich in tin, and a sceptre-like object of pure tin, gilded and furnished with bronze finials.

Digitized by Google

Mr. C. W. Andrews adds a note on the species of birds identified from bones found at Glastonbury.

SILCHESTER. BRIT. ASS. COMMITTEE.

The excavations at Silchester in 1898 were begun on May 2 and continued, with the usual interval during the harvest, until November 26.

Operations were confined to an area of about eight acres in the south-west corner of the city.

This area is bounded on the north by *insulæ* XV and XVI; on the east by *insulæ* XVII and XVIII, excavated in 1897; and on the other sides by the city wall. It contained two *insulæ* (XIX and XX), together with a large triangular area to the south, forming apparently part of *insula* XVIII. See the plan in last year's report.

Insula XIX presents the peculiarity of being inclosed by a wall, and contains, in addition to three minor buildings, a well-planned house of early date and of the largest size, with fine hypocausts. To it is attached the workshop of some industry, with a large inclosure dependent on it, containing two settling-tanks, perhaps belonging to a tannery. The courtyard of this house is partly underlaid by the remains of a much earlier one, of half-timbered construction, containing in one of its chambers a mosaic pavement of remarkable design, and perhaps the earliest in date yet found in this country. A small house in this *insula* is somewhat exceptional in plan and also, perhaps, of early date.

Insula XX contains a number of buildings scattered over its area, but none of these appears to be of any importance. Two of them are of interest as furnishing plans of houses of the smallest class. This *insula* also contains one of the curious detached hypocausts which were noticed in the excavations of 1897. A large inclosure with attached chambers, nearer the lesser west gate, may be conjectured to have contained stabling for the accommodation of travellers entering the city.

Several wells were found in both *insulæ*, lined either with the usual wooden framing or disused barrels. A pit in *insula* XX contained a double row of pointed wooden stakes driven into the bottom, and may have been for the capture of wild animals at some period anterior to the existence of the Roman town, or subsequent to its extinction. No architectural remains were found, but the rubbish-pits yielded the usual crop of earthen vessels.

The finds in bronze and bone do not call for any special notice, but an enamelled brooch of gilt-bronze, with a curious paste intaglio and several settings of rings, may be mentioned.

Among the iron objects are a well-preserved set of hooks, perhaps for hoisting barrels, and a curious pair of handcuffs or fetterlock.

From a pit in *insula* XIX was recovered an upper quern stone, still retaining its original wooden handle.

Although a considerable area in the southern part produced no pits or traces of buildings, the *insulæ* excavated are quite up to the average in point of interest, and their addition to the plan completes a very large section of the city.

A detailed account of all the discoveries was laid before the Society of Antiquaries on May 4, 1899, and will be published by the Society in *Archæologia*.

STONEHENGE. EDDOWES.

Dr. Alfred Eddowes described some new observations and a suggestion on Stonehenge. He believes that the thirty large upright stones, with their intervals,

Digitized by Google

indicate that the circle was divided into sixty equal parts; that the Grooved Stone was used for supporting a pole; and that the signs of wear at the mouth of the groove, together with the two worn horizontal hollows on the convex back of the stone, indicate *how* this pole was fixed. Such a pole would form the pointer of a sun-dial, or by the length of its shadow an indicator of the time of year.

In discussion, it was pointed out that the sun-dial theory, as commonly stated, ignored the necessity of treating Stonehenge, not as an unique monument, but in connection with the many smaller circles and other "megalithic" constructions of which the original purpose can be more easily ascertained.

STONE IMPLEMENTS: PITCAIRN ISLAND. BROWN.

Mr. J. Allen Brown showed some fine specimens of adzes and long club-like basalt chisels ground on both sides, and of larger axe-heads, some rough chipped, others ground to a cutting edge and polished. In the discussion which followed, Dr. Hamy, Keeper of the National Museum of Ethnography in Paris, observed that in the Polynesian and Melanesian Archipelagoes, each island had its own characteristic forms, ascertainable by comparative examination. It was therefore necessary in collecting to keep these implements quite separate, so that by comparison the developments in their methods of construction could be ascertained, and also their paths of migratory progress from one island or group to another. From this standpoint the importance of the discoveries had no mathematical relation to the extent of territory in which they were found.

ETHNOGRAPHY.

AFRICA: UGANDA. MACDONALD.

Lieutenant-Colonel J. R. L. Macdonald, R.E., presented an account of the tribes and languages observed in the course of the Juba Expedition northward from Uganda.

[It will be published in full in this *Journal.*]

AFRICA: BENUE RIVER. POPE-HENNESSY.

Lieutenant H. Pope-Hennessy contributed notes on the Jukos and other West African tribes north of the Benue River.

[They will be published in full in this *Journal.*]

AFRICA: SOMALI, GALLA, etc. KOETTLITZ.

Dr. R. Koettlitz exhibited a number of weapons and other objects collected by him in a recent journey through the Somali, Galla, and Shangalla country.

[They will be exhibited at the Anthropological Institute during the current session, and described in this *Journal.*]

CANADA. BRIT. ASS. COMMITTEE.

The Committee of the Ethnographic Survey of Canada reports that during the past year their work has been extended in important directions.

A large number of schedules giving detailed directions to observers have been distributed; but it was found necessary to issue supplementary instructions respecting facial types and directions for certain measurements. Through the courtesy of Professor F. W. Putnam and Dr. F. Boas, it has been possible to make use of the excellent series of facial types employed by the Bureau of Ethnology of the World's Columbian Exposition at Chicago.

Digitized by Google

Several requests for anthropometric instruments have been received, and several observers have already forwarded extensive records of measurements.

The work of the past year is further represented by two papers appended to the Report, namely—

1. The origin of Early Canadian Settlers, by Mr. B. Sulte, Ottawa.
2. Studies of the Indians of British Columbia, by Mr. C. Hill-Tout, Vancouver, B.C.

Copies of photographs taken by Mr. Hill-Tout and by Dr. G. M. Dawson have been deposited with the British Association.

The work now in progress includes:—

(1) Customs and Traditions of the Huron Indians of Lorette, P.Q., by Mr. Leon Gerin, Ottawa. (2) Anthropometric Studies, by Dr. C. A. Hibbert, Montreal; Mr. A. F. Hunter, Batrie, Ont.; Dr. F. A. Patrick, Yorkton, N.W.T.; Dr. F. Tracey, Toronto. (3) Photographic Studies of the North-West Coast Indians, by Dr. C. F. Newcombe, Victoria, B.C. (4) Studies of the Early Settlers of Canada, by Mr. B. Sulte, Ottawa; and (5) Ethnological Studies of the Indians of British Columbia, by Mr. C. Hill-Tout.

The introduction into the North-West of large bodies of Europeans who are to become permanently incorporated in the population of the Dominion, has suggested the importance of securing, at as early a date as possible, such facts relating to their general ethnology as may seem to establish a suitable basis for the study of these people under the influence of their new environment. Satisfactory arrangements have been made with respect to the Doukhobors, and it is probable that similar arrangements may be completed during the coming year with respect to other large bodies of immigrants.

The exceptional circumstances surrounding the Indians of British Columbia; the fact that it is becoming more difficult each year to obtain reliable accounts of these people; the rapid disappearance of old customs, dress, and mode of living; and also the present availability of the services of an expert and enthusiastic observer have seemed sufficient reasons for devoting to their study a much larger share of the resources of the Committee than might otherwise appear justifiable.

NEW GUINEA AND TORRES STRAITS. CAMBRIDGE EXPEDITION.

The principal results of the recent Cambridge Expedition to New Guinea and Torres Straits were described by Dr. A. C. Haddon and his colleagues in a series of papers which will be published in full in the Memoirs of the Expedition. A summary of the important *psychological* and *linguistic* results will be found below under their respective headings.

[*Cf.* the summary account in *Nature*, No. 1557.]

NEW GUINEA. SELIGMANN.

Mr. C. G. Seligmann presented notes on the Club Houses and *Dubus* of British New Guinea. One or more houses larger and more highly decorated than the rest called in the Gulf and Mekeo districts *elamo* and *marea* respectively, are to be seen in every village of these parts of British New Guinea. No women may enter these, they are the club houses of the men, the home of the unmarried youths, and strangers are quartered there. Each family or family group, called *itzubu* in the Mekeo district, is responsible for the upkeep of one of these. Among the Toaripi much stress is laid on the convenience and advantage of an *elamo* in keeping the young men from the

Digitized by Google

women's quarters, and their legend of the origin of the *elamo* relates how one of their ancestors, called Meuliave, was visited by Avara Laru, who rules the north-west squalls, who bade him build a house for the unmarried youths into which no woman might come. Infringement of these rules is still met by Avara Laru destroying the *elamo*. Wooden effigies of birds and fishes are hung outside *elamos*, but these are not reverenced—the beast they represent is eaten when opportunities offer, and the family group is not called by their name. East of Delena *elamos* or *mareas* are not found, but their place is taken by the *dubu*, a platform, often two-storied, with elaborately carved corner posts and cross-pieces stretched longitudinally across the tops of these, which are hollowed to receive them. One man called *Dubu Tauna*, from each principal family of a family group (*iduhu*), looks after and is responsible for the *dubu*. The office is hereditary, not necessarily in the direct line. Women may not approach the *dubu* except on the Hood Peninsula, where once a year the girls who have become marriageable assemble on the *dubu*. The products of the garden and chase are sometimes hung on the *dubu*, which may rarely be painted red and white. Semon, *Im Australischen Busch*, p. 353, notes that he has seen skulls hung on one, but does not state where. Before fighting, warriors fully decked and armed resort to the *dubu* and there mutter the names of their ancestors. After killing a man, the successful warrior would, on his return to the village, go straight to the *dubu*, and on it eat his first meal. But little could be determined as to the meaning of the carving, the origin of the *dubus* themselves being unknown to the natives. At Qualimarupu there is a carefully excavated hollow in one of the corner posts, said to represent a bowl. The pattern, as a rule, is made up of a number of four-sided pyramids carved on the wood, and the tops of the corner posts are carved so as to resemble jaws, between which the cross-pieces rest. Perhaps these represent the jaws of a crocodile, the pyramids being conventionalized scales. This form of decoration is, however, found among inland people whose acquaintance with crocodiles must have been but slight.

NEW GUINEA: TORRES STRAITS. SELIGMANN.

Mr. C. G. Seligmann described the seclusion of girls at Mabuiag, Torres Straits.

When the signs of puberty appear, a circle of bushes is made in a dark corner of the girl's parents' house. The girl, now called *Kerngi Gasaman*, is fully decked with cross shoulder-belts of young cocoanut leaf, with leglets just below the knee, with anklets, with petticoat, with chaplet round head, with armlets of cocoanut with cut dracenas in them; with shell ornaments hung on front and back of chest, and with nautilus shell ornaments in her ears. She squats in the centre of the bushes, which are piled so high around her that only her head is visible. This lasts for three months, the bushes being changed nightly, at which time the girl is allowed to slip out of the hut. She is attended by one or two old women, the girl's maternal aunts, who are especially appointed to look after her. These women are called *Mowai* by the girl; one of them cooks food for the girl at a special fire in the bush. The girl may not feed herself or handle her food, it being put into her mouth by her attendant women. No man—not even the girl's father—may come into the house; if he saw his daughter during this time he would certainly have bad luck with his fishing, and probably smash his canoe the first time he went out. The girl may not eat, in the breeding season, turtle or turtle eggs; no vegetable food is forbidden. The sun may not shine on her; "he can't see day time, he stop inside dark," said my informant. At the end of three months a girl is carried to the fresh-water creek by her *Mowai*, she hanging on to their shoulders so that not even her feet touch the ground, the women of

Digitized by Google

the tribe forming a ring round the girl and *Mowai*, thus escorting her to the creek. Her ornaments are removed, and the *Mowai* with their burden stagger into the creek, where the girl is immersed, all the women joining in splashing water over the three. On coming out of the water, one of the *Mowai* makes a heap of grass for her charge to squat on, while the other runs to the reef and catches a small crab. She tears off its claws, and with these she runs back to the creek, where a fire has meanwhile been made, at which the claws are roasted. The girl is then fed on these by the *Mowai*. She is then freshly decorated, and the whole party marches back to the village in one rank, the girl being in the centre, with the *Mowai* at her side, each of them holding one of the girl's wrists. The husbands of the *Mowai*, called by the girl *Waduam*, receive her, and lead her into the house of one of them, where all eat food, the girl being now allowed to feed herself in the usual manner. The rest of the community have meanwhile prepared and eaten a feast, and a dance is held, in which the girl takes a prominent part, her two *Waduam* dancing, one on each side of her. When the dance is finished the *Mowai* lead the girl into their house and strip her of her ornaments. They then lead her back to her parents' house.

QUEENSLAND. SELIGMANN.

Dr. C. G. Seligmann presented notes on the Otati tribe of North Queensland, visited in the course of the Cambridge Expedition.

QUEENSLAND. HADDON.

Dr. A. C. Haddon presented notes on the Yaraikanna tribe, Cape York, North Queensland, visited in the course of the Cambridge Expedition.—The Yaraikanna are fairly typical Australians in appearance; six men were measured, average height 1·625 m. (5 feet 4 inches), cephalic index 74·7 (extremes, 72·4–77·7). A lad is initiated by his *mawara*, apparently the men of the clan into which the boy must subsequently marry; he is anointed with "bush-medicine" in the hollow of the thighs, groins, hollow by the clavicles, temples, and back of knees to make him grow —the bull-roarer is swung. In the *Yampa* ceremony the initiates (*langa*) sit behind a screen in front of which is a tall pole, up which a man climbs and catches the food thrown to him by the relatives of the *langa*. Then the bull-roarer is swung and shown to the *langa*; lastly, a front tooth of the *langa* is knocked out, with each blow the name of a "land" belonging to the boy's mother or of her father is mentioned, and the land, the name of which is mentioned when the tooth flies out, is the territory of the lad. Water is next given to the boy, who rinses out his mouth and gently empties his mouth into a palm-leaf water vessel; the clot by its resemblance to some animal or vegetable form determines the *ari* of the lad. The *ari* appears to be analogous to the *manitu* or *okki* (or "individual totem" of Wazer) of the North American Indians. After the ceremony the boy is acknowledged to be a man. Other *ari* may be given at any time by men who dream of an animal or plant, which is the *ari* of the first person they meet on awakening. The *Okara* ceremony was alluded to, and various customs, among which may be noted, children must take the "land" or country of their mother, a wife must be taken from another country; all who belong to the same place are brothers and sisters.

SCOTLAND. GRAY.

Mr. J. Gray, B.Sc., gave an account of recent ethnographcial work in Scotland. The preliminary observations on the physical characteristics of the people of East Aberdeenshire, begun in 1895 by the Buchan Field Club, were summarised in a paper

Digitized by Google

in *Proc. Brit. Ass.* (Ipswich), 1895, p. 831, and published more fully in the *Transactions of the Buchan Field Club.*

A pigmentation survey of the whole of the school children of East Aberdeenshire has since been completed, chiefly through the organising ability of Mr. Tocher, the Secretary of the Buchan Field Club, and the generous and gratuitous co-operation of the school teachers. Returns were received between October, 1895, and November, 1897, from over ninety schools, comprising nearly 14,000 children.

The scheme of colours for hair and eyes was practically the same as that of Dr. Beddoe; but his two darkest classes for hair were amalgamated into one. Comparison with Dr. Virchow's survey of German school children would, however, have been facilitated if blue eyes had been separated from other light eyes.

The Pigmentation of the school children (with that of adults added for comparison) is shown in the following table of average results:—

—	Hair.				Eyes.		
	Fair.	Red.	Brown.	Dark.	Light.	Medium.	Dark.
Children, total	25·3	7·0	46·5	21·2	41·0	35·0	24·0
„ Boys	23·6	6·8	48·2	21·4	41·6	35·8	22·6
„ Girls	26·9	7·3	44·7	21·1	40·6	33·8	25·6
Adults, total	9·5	5·7	64·1	20·7	25·4	48·6	26·0
„ Males	9·5	5·6	66·2	18·7	21·3	50·7	22·8
„ Females	9·8	6·4	54·8	29·0	21·6	39·0	39·4

A study of this table reveals several noteworthy facts:—

(1) About 15½ per cent. of the fair-haired children become brown-haired adults—almost exactly the same percentage that Virchow found to become brunette in Germany, and about 15 per cent. light-eyed become medium or dark-eyed.

(2) Between boys and girls the percentage of dark hair is practically equal, and the girls have only 3 per cent. excess of dark eyes; but adult females have 11 per cent. more dark hair than adult males, and 16½ per cent. more dark eyes. The darkening of the females is therefore post-natal. Ripley points out the same excessive pigmentation of the females among the Jews, and also in regions like Alsace, where a blonde race has invaded a brunette country.

A comparison with the continental districts whence, according to tradition and history, we have derived a large element in our population, namely, Schleswig-Holstein, Lüneburg, and Mecklenburg-Schwerin, the reputed original seats of the Angles and Saxons, is shown in the following table:—[1]

—	Brunette type.	Blonde type.	Blonde hair.	Brown hair.	Light eyes.	Brown eyes.
Upper Bavaria	24	17	51	48	25·7	34
Schleswig-Holstein	7	43	82	18	50	16
Lüneburg	7	44	83	17	49	18
Mecklenburg-Schwerin	10	42	77	23	49	21
East Aberdeenshire	20·4	16·2	25·3	67·7	41	24

[1] The Aberdeenshire "blonde-type" (including fair hair with light grey eyes, as well as with blue) is rather larger than Virchow's (which includes only the blue eyes), but the "brunette types" are practically the same.

Digitized by Google

The three North German districts are clearly much more blonde than East Aberdeenshire. Germany, as Virchow's survey has shown, gets more brunette and less blonde from north to south; but we must go to its extreme southern frontier—*i.e.*, to Upper Bavaria—before we find a district approximating in pigmentation to East Aberdeenshire.

It is noteworthy that whereas in Germany (especially in North Germany) there is always more blonde hair than blue eyes, in Aberdeenshire the reverse is the case. Of this, two explanations are possible: (1) that the immigrants from Germany were not pure blondes, but of a mixed variety with brown hair and blue eyes; or (2) that pure blonde immigrants found here a population with brown eyes and hair so black as to resist depigmentation longer than the brown eyes.

The maps of different elements show blonde areas on the accessible parts of the coast, and brunette areas on the inaccessible parts.

The Stature of 169 persons measured at Mintlaw in 1895 averaged 5 feet $8\frac{1}{2}$ inches (which is about the average for Scotland), with three distinct peaks of maximum frequency at 5 feet $7\frac{1}{2}$ inches, 5 feet 9 inches, and 5 feet $11\frac{1}{2}$ inches. Of thirteen persons of 5 feet $11\frac{1}{2}$ inches in height, nine were dark, three brown, and one fair-haired, the other two heights comprise equal numbers of fair and dark.

The Head Measurements show cephalic indices lying almost entirely between 74 and 84, with peaks of maximum frequency at 77 and 79. These indices do not give a satisfactory analysis into race groups; but on plotting the head-measurements on a chart, with the length and breadth as co-ordinates, the people are separated into three groups, coinciding very closely with Beddoe's average dimensions plotted on the same chart; of (1) Italians and Row-grave-men; (2) Danes; (3) Hanoverians. The Danish group is the most numerous, the Italian coming next, and the Hanoverian last. Mixed groups also appear on the chart, having the length of one typical group, and the breadth of another.

[To be published in full in the *Transactions of the Buchan Field Club.*]

United Kingdom. Brit. Ass. Committee.

The Seventh (and final) Report of the Committee of the Ethnographical Survey of the United Kingdom presents a summary of the method adopted by the Committee, and of the results hitherto attained; not indeed as suggesting that the work of organising an Ethnographical Survey of the United Kingdom, which was first entrusted to the Committee at the Edinburgh Meeting in 1892, has been completed, but because in the opinion of the Committee the preparation for that work has been carried as far as the means at their disposal have enabled them to carry it, and because they have arrived at the conviction that the work itself may now properly be left to be completed by other hands possessing the necessary organisation and more adequate means.

The method adopted by the Committee was: (1) To inquire what places were suitable for the survey, as containing a population in which there had been comparatively little admixture of race. (2) To draw up a brief and comprehensive code of instructions for observers, with explanatory comments and directions as to the use of instruments for measuring, etc. (3) To enlist the voluntary assistance of local societies and local observers in making measurements, collecting items of folk-lore, and otherwise.

Under the first head, the Committee collected in their first and second reports *Proc. Brit. Ass.* (Nottingham), 1893, p. 621 ff; (Oxford), 1894, p. 419, from the information supplied to them by persons of authority resident in the various districts,

Digitized by Google

a list of between 300 and 400 villages and places which complied with the definition laid down by the Committee as containing a number of persons whose ancestors had belonged to the locality for as far back as could be traced.

Under the second head, the Committee prepared and published, in their second and third reports (*Proc. Brit. Ass.* (Oxford), 1894, pp. 426–9; (Ipswich), 1895, p. 509 ff), a code of instructions for observers in the several branches of the investigation.

The Committee have also published in subsequent reports a paper drawn up by Mr. Hartland (*Proc. Brit. Ass.* (Ipswich), 1895, p. 513 ff), containing many useful hints to observers; and a paper by Mr. Gomme (*Proc. Brit. Ass.* (Liverpool), 1896, p. 626 ff), on the scientific method to be pursued in localising folklore observations.

In other reports, the Committee have published at length specimen collections of physical observations and folklore observations, the principal of which collections were made by the lamented Dr. Walter Gregor. These are intended to serve as models for other observers, as it was not the intention of the Committee to print at length in their reports the records of observations contributed to them by the several collectors, but only a digest of the results.

The following list of these special reports published by the Committee will facilitate reference :—

Aberdeen, Banff, and Isle of Lewis ..	*Proc. Brit. Ass.*, 1897, p. 506 ff.
East Anglia (Cambridge Committee) ..	,, ,, ,, 1897, p. 503 ff.
Galloway (Rev. Dr. W. Gregor) ..	,, ,, ,, 1896, p. 612 ff.
,, ,, ..	,, ,, ,, 1897, p. 456 ff.
Ireland	,, ,, ,, 1896, p. 609 ff.
,, ...	,, ,, ,, 1897, p. 510 ff.
Kirkcudbrightshire	,, ,, ,, 1897, p. 500 ff.
Lewis (Isle of).	,, ,, ,, 1897, p. 506 ff.
Pembrokeshire (E. Laws, F.S.A.) ..	,, ,, ,, 1896, p. 610 ff.
Wigtownshire	,, ,, ,, 1897, p. 500 ff.
Yorkshire (Cleckheaton)	,, ,, ,, 1897, p. 510 ff.
Cf. the lists of unpublished communications	,, ,, ,, 1897, p. 453–4.
,, ,, ,, ,,	,, ,, ,, 1898, p. 713.

Under the third head, the policy of the Committee has been. (1) To establish Sub-committees in various parts, and secure the co-operation of local societies in forming such Committees and otherwise. (2.) To obtain the services of volunteer individual observers. The Committee feel that their best thanks are due to the societies and persons by whom they have been favoured with information; but they are also of opinion that for the future conduct of the survey, it will not be sufficient to rely upon such assistance, however generously bestowed. To ensure absolute uniformity in the methods of collecting information, upon which the usefulness of the information for the purposes of comparison almost entirely depends, it is essential that one or more persons should be wholly engaged upon the work.

There are two methods by which this can be done. (1) The entrusting to the Committee of the necessary means. (2) The transfer of the work to another body possessing the necessary means. The circumstance that the Ethnographic Bureau, has now been established under the auspices of the British Museum, induces the Committee to lean rather to the second course; and the Committee cannot but think that the Bureau might well include the British Islands within the scope of its functions.

Digitized by Google

FOLKLORE, RELIGION, etc.

ANIMISM. MARETT.

Mr. R. R. Marett, M.A., read a paper on "Pre-animistic Religion." The term Religion denotes a state of mind embracing emotional and ideal constituents, whereof the former constitute the universal and constant, the latter the particular and variant element. Self-interpretation in ideal terms on the part of the religious emotion of the savage has found most complete and definite expression in Animism, the "Belief in Spiritual Beings." Animism, however, as compared with "Supernaturalism," namely, that state of feeling almost uncoloured by ideas which is the primary form taken by man's Awe of the Supernatural (or extraordinary) is but as the strongest sapling in a thicket of heterogeneous growths, which, in the struggle for existence, has come to overshadow the rest and give a character to the whole. The vagueness of primitive "supernaturalistic" utterance is illustrated by, *e.g.*, *andriamanitra* (Malagasy), *ngai* (Masai), *mana* (Melanesians), *wakan* (North American Indians), *kalou* (Fijians). A "pre-animistic" validity as manifestations of religion thus attaches to a variety of special observances and cults; and it may therefore be interesting in the case of some of the more important of these to distinguish between the original basis of "supernaturalistic" veneration and the animistic interpretation that as the result of successful competition with other modes of explanatory conception (notably "Animatism," namely, the attribution of life and will, but not of soul or spirit, to material objects and forces) is thereon superimposed in accordance with the tendency of the religious consciousness towards doctrinal uniformity. The author illustrates his thesis as follows:—

A. *In regard to the Inanimate.*—(1) Selected instances show the transition through "Animatism" and "animatistic" mythology to Animism in the interpretation of the religious awe felt in relation to extraordinary manifestations on the part of Nature-Powers; (2) the cult of the Bull-roarer displays an almost complete absence of animistic conceptions in regard to the veneration of *Daramulun*, *Mungunngaur*, *Turndun*, *Baiamai* (Kurnai, Murrings, Kamilaroi, etc.); (3) in Stone-worship; sympathetic magic in connection with the use of "guardian stones," etc., generates explanatory conceptions tending towards an animistic form.

B. *In regard to the Subanimate and Animate.*—(1) Plant and Animal Worships show how Totemistic Magic and, apart from Totemism, the desire for magical communion with extraordinary animals, invite explanations which need not be animistic, though they tend to become so. (2) Among observances connected with the phenomena of human life: (*a*) dream and trance are the special parent-soil of Animism; (*b*) awe of the Dead Body, as such, is due to the instinct of self-preservation, an influence which co-operates with the theory of the self-existent soul to bring about the ascription of the "potency" of human remains to that of the surviving spirit; (*c*) Diseases taking the form of seizure, and those of a convulsive nature, lend themselves almost directly to animistic interpretation; those ascribable to Witchcraft are not necessarily so explained, though the idea of Infection tends this way; the awe of Blood, notably of an issue of blood, is analogous to the awe of the Dead Body, and a crucial proof that "supernaturalistic" veneration may, in regard to certain maladies, assert itself strongly in the absence of animistic colouring.

[To be published in full in *Folklore*.]

BURMAH: NATS. TEMPLE.

Colonel R. C. Temple, C.I.E., described the "Thirty-seven *Nats*, or spirits, of the Burmese." The belief in the Nats, or supernatural beings who interfere in the affairs

Digitized by Google

of mankind, is universal among all the native inhabitants of Burma of every race and religion. Every writer about the Burmese and their customs mentions the Nats. The subject is, however, still but vaguely understood. The Nats are of three distinct kinds: (1) the supernatural beings due to the Buddhist cosmogony; (2) the supernatural beings familiar to the creatures, objects, and places with which man is concerned due to the prehistoric animistic beliefs of the people; (3) the supernatural beings who are ghosts and spirits of the notorious dead. Of the many orders of Nats thus created, that of the Thirty-seven Nats is by far the best known among the people. These are the ghosts of the departed royalties of fame, and their connections. About them nothing seems to have been previously published in England, and this paper is a preliminary attempt at an adequate representation of them, and of the history, real or supposed, connected with them during life.

[To be published in full, and with full illustrations, in this *Journal.*]

INDIA: FUNERAL RITES. CROOKE.

Mr. W. Crooke described the "Survival of Primitive Funeral Rites in Modern India," under the following heads:—

(*a*) Customs connected with the preservation of the corpse, such as various forms of mummification; (*b*) platform burial; (*c*) direct exposure of the dead to beasts of prey; (*d*) general exposure of the dead; (*e*) the question of the priority of burial to cremation; (*f*) transitions from burial to cremation, and *vice versâ*; (*g*) disposal of those dying in a state of taboo; (*h*) shelf or niche burial; (*i*) crouched or sitting burial; (*j*) disinterment of the corpse; (*k*) jar or urn burial; and (*l*) dismemberment of the corpse.

[To be published in full in this *Journal.*]

ITALY: GUBBIO. MACIVER.

Mr. D. MacIver exhibited a model of the "Cero" of St. Ubaldino, which is explained as a relic of a pagan Spring Festival observed at Gubbio in Umbria. The model is deposited in the Pitt Rivers Museum in Oxford, and will be described fully at a future meeting of the Folklore Society. *Cf.* also H. M. Bower, *The Procession and Elevation of the Ceri at Gubbio.* Folklore Society's Publications, No. 39.

LANGUAGE.

NEW GUINEA: TORRES STRAITS. RAY.

Mr. Sidney H. Ray presented an account of the Linguistic Results of the Cambridge Expedition to Torres Straits and New Guinea.

The geographical position of the Torres Straits Islands renders an accurate knowledge of the construction of the languages important, especially for determining the relation of the Australian languages to those of New Guinea and the Malay Archipelago, and also, perhaps, to languages further west in Southern India and the Andaman Islands. Several missionaries have worked among the Eastern and Western tribes of the Straits, and the existing gospel translations are reputed to have been made by them, but no one has preserved any record of, or can throw any light upon the construction of the languages. The translations were analysed in a former work, *Proc. Roy. Irish Acad.* (3) 1893, ii, p. 463; iv, 1897, p. 119, by Dr. Haddon and myself, but the result was somewhat unsatisfactory. As we had dealt exhaustively with the vocabularies, my attention during my stay in the islands was mainly concentrated upon the grammars of the two languages.

Digitized by Google

The construction of the Eastern (Murray and Darnley Islands) language was found to be very complex, modifications of sense being expressed by an elaborate system of prefixes and suffixes.

The grammar bears no resemblance to the Melanesian, and but little to the Australian. The speech used in school and church is a debased form of the original; as my native informant described it, "they cut it short." As most of the young people know English, it is very probable that the pure language will die out with the older folk.

The language of the Western tribe was studied at the central island of Mabuiag, but the closely allied dialects spoken on Warrior Island, Saibai, and Prince of Wales Island, were also investigated. The grammar of this language is decidedly of Australian type, though there is no marked connection in structure or vocabulary with languages of the neighbouring mainland. Of these latter, the dialect of the Yaraikanna tribe in the neighbourhood of Cape York was also investigated.

In New Guinea, at Port Moresby, the Motu language is well known, and I used it as the means of obtaining from Koitapu natives some illustrations of their strange language. The results show that there are people living in the Motu villages, whose languages are totally distinct from that of the Motu both in structure and vocabulary. A language (Koiari) similar to the Koitapu was found to prevail in the district inland from Port Moresby.

At Port Moresby I also obtained from some Cloudy Bay natives specimens of their language, which like those of Koitapu and Koiari, approaches the Australian type, but has nothing in common with the Melanesian.

At Bulaa (Hula), Hood Peninsula, the structure of the dialects of Bulaa, Keapara (Kerepunu) and Galoma were the subject of conversations with Kima, the intelligent chief of Hula. These dialects are related to the Motu, and like it, are in grammar and vocabulary very closely akin to the languages of the Melanesian Islands.

At Saguana in Kiwai Island is the Fly River Delta, I took advantage of a fortnight's stay to make a first investigation into Kiwai and Mowata grammar. The language is very difficult, with exceedingly complex forms. It shows some traces of connection with the speech of the Eastern Islanders of the Torres Straits.

PSYCHOLOGY.

NEW GUINEA: TORRES STRAITS. CAMBRIDGE EXPEDITION.

The following Contributions to Comparative Psychology resulted from the recent Cambridge Expedition to New Guinea and Torres Straits.

I.—*General Account and Observations on Vision, etc.* By W. H. R. Rivers.

Previous work on the psychology of savage peoples has been limited to deductions from their behaviour, customs, and beliefs. The special object of the psychological work of the Cambridge Anthropological Expedition was to employ exact experimental methods in the investigation of the mental character of the natives of Torres Straits and New Guinea. By means of these methods it is only possible to investigate directly the more elementary mental processes, but in the course of such work one meets indirectly with many facts which illustrate the higher and more complex developments of mind.

Observations were made in Murray Island by Messrs. McDougall, Myers, and

Digitized by Google

myself on about 150 individuals. The subjects investigated included visual acuity, sensitiveness to light, colour vision, including colour-blindness, binocular vision and visual space perception; acuity and range of hearing, appreciation of differences of tone and rhythm; tactile acuity and localisation, sensibility to pain, estimation of weight, smell and taste; simple reaction times to auditory and visual stimuli, and choice reaction times; estimation of intervals of time; memory; strength of grasp and accuracy of aim; reading, writing, and drawing; the influence of various mental states on blood-pressure; and the influence of fatigue and practice on mental work.

In Kiwai and Mabuiag fewer observations could be made, owing to the fact that most of the apparatus had been taken on to Borneo, but observations were made by Mr. Seligmann and myself on more than 100 individuals, many of whom were not, however, natives of these islands. The subjects investigated were chiefly visual acuity and colour vision; auditory acuity; smell and touch; writing and drawing.

It is not possible now to do more than give a rough sketch of our results. Most of the methods used had been in some degree modified to meet the unusual conditions, while some were new, and the consequence is that, with one or two exceptions, we have very few data with which to compare our results. The exact bearing of most of our observations will only become apparent when comparative data on European and other races have been collected.

Our observations were in most cases made with very little difficulty and, with some exceptions, we could feel sure that the natives were doing their best in all we asked them to do. This opinion is based not only on observation of their behaviour and expression while the tests were being carried out, but on the consistency of the results. The small deviations of individual observations from the average (mean variation) showed that the observations were made with due care and attention.

The introspective side of psychological experimentation was almost completely absent. We were unable to supplement the objective measurements and observations by an account of what was actually passing in the minds of the natives while making these observations. Attempts were made in this direction without much success.

One general result was to show very considerable variability. It was obvious that in general character and temperament the natives varied greatly from one another and very considerable individual differences also came out in our experimental observations. How great the variations were as compared with those in a more complex community can only be determined after a large number of comparative data have been accumulated.

Another general result which should be of great interest to anthropologists is that the natives did not appear to be especially susceptible to suggestion, but exhibited very considerable independence of opinion. Leading questions were found not to be so dangerous as was expected. It is hoped that when our results are worked out, it will be possible to express in some definite manner the suggestibility of these people as compared with Europeans.

Of the special investigations undertaken by myself, that on visual acuity was the subject of a paper in the Physiological Section of the British Association. *Cf. Proc. Brit. Ass.* (Dover), 1899.

The colour vision of the natives was investigated in several ways. A hundred and fifty natives of Torres Straits and Kiwai were tested by means of the usual wool test for colour-blindness without finding one case. About eighty members of other races, including Australians, Polynesians, Melanesians, Tamils, and half-castes were also tested without finding one case, except among natives of Lifu. No less than

Digitized by Google

three out of eight natives of this island were found to suffer from well marked red-green blindness of the ordinary type. Unfortunately the number of Lifu natives who could be examined was too small to allow any definite conclusions to be drawn, but the possibility is suggested that colour-blindness may be a racial peculiarity, a fact, which if established, would be of great ethnological importance.

The names used for colours by the natives of Murray Island, Mabuiag, and Kiwai were very fully investigated, and the derivation of such names in most cases established. The colour vocabularies of these islands showed the special feature which appears to characterise many primitive languages. There were definite names for red, less definite for yellow, and still less so for green, while a definite name for blue was either absent or borrowed from English.

The three languages mentioned, and some Australian languages, seemed to show different stages in the evolution of a colour vocabulary. Several Australian natives (from Seven Rivers and the Fitzroy River) appeared to be almost limited to words for red, white, and black. In Kiwai there was no word for blue, for which colour the same word was used as for black, while the name applied to green appeared to be inconstant and indefinite. In Murray Island the native word for blue was the same as that used for black, but the English word had been adopted and modified into *bŭlu-bŭlu*. The language of Mabuiag was more advanced; there was a word for blue (*maludgamulnga*, sea-colour), but it was often also used for green.

Corresponding to this defect of colour terminology, there appeared to be an actual defect of vision for colours of short wave-length. In testing with coloured wools, no mistake was ever made with reds, but blues and greens were constantly confused, as were blue and violet. The same deficiency in seeing blue seemed also to be shown in experiments on the threshold of sensitiveness for red, yellow, and blue, carried out with Lovibond's tintometer. Experiments on the distance at which small patches of different colours could be recognised also showed great inferiority in seeing blue as compared with red, but the few comparative observations so far made, do not enable one to say that there is any striking difference between Europeans and Papuans in this respect.

Observations were also made on the colour vision of the peripheral retina, on after-images and on colour contrast.

Observations were made by means of Hering's fall experiment which showed the existence of binocular vision in all except one man with an orbital tumour.

Quantitative observations were made on some visual illusions.

Numerous observations were made on writing and drawing, the former chiefly in the case of children. The most striking result here was the ease and correctness with which mirror writing was performed. In many cases native children, when asked to write with the left hand, spontaneously wrote mirror writing, and all were able to write in this fashion readily. In some cases children, when asked to write with the left hand, wrote upside down.

Experiments were made on the estimation of time. The method adopted was to give signals marking off a given interval; another signal was then given as the commencement of a second interval, which the native had to finish by a similar signal when he judged it to be equal to the given interval. This somewhat difficult procedure met with unexpected success, and intervals of 10 seconds, 20 seconds, and one minute were estimated with fairly consistent results.

Nearly all the investigations gave some indication of the liability to fatigue and the capability for improvement by practice, but these were also the subject of a special investigation carried out by modifications of Kraepelin's methods.

Digitized by Google

II.—*Observations on Hearing, Smell, Taste, Reaction, Time, etc.* By C. S. Myers.

The conditions for testing acuity of hearing were very unfavourable on Murray Island, owing to the noise of the sea and the rustle of the cocoanut palms. The general results of many experiments lead me to conclude that few Murray Islanders surpass a hyper-acute European in auditory acuity, while the majority cannot hear as far. For the determination of the upper limit of the perception of tone I used Hawksley's improved form of Galton's Whistle. Of the fifty-one Murray Islanders who were investigated, all save one readily appreciated the difference between the pure high note and the noise of the blast that is inseparable from it. Experiments were also made to determine the minimum perception of tone-differences. Twelve Islanders were tested for their sense of rhythm; this was found to be remarkably accurate for 120 beats of the metronome to the minute, and somewhat less so for 60 beats. Most of the subjects had a tendency to vary in the direction of increasing the rate of the taps.

Olfactometry is very difficult to prosecute for various reasons. Until I have made further comparative observations on Europeans, I can draw no certain conclusions as to the relative smell-acuity of the former and the Murray Islanders; but so far as my experiments go, they seem to indicate no marked superiority in the development of this sense among the Islanders. Doubtless hyper-acuity is more common among them, but there seems no reason to believe that they are able to perceive such traces of odour as would be imperceptible to the most sensitive European noses.

Experiments were made to determine the appreciation and recognition of the common tastes—sweet, salt, bitter, and acid. Sugar and salt were readily recognised, acid was compared to unripe fruit; the bitter is the most uncertain—evidently there is no distinctive name for it in the Murray Island vocabulary.

Binet's diagram used for testing visual memory was employed on twenty-eight people with interesting results.

Numerous time reaction experiments were made, more on simple auditory reaction than on simple visual reactions; a few visual choice reactions were also made. The time of the simple reaction is not sensibly longer, but probably in many cases even shorter, than would be that given by a corresponding class of Europeans. The experiments clearly showed the great difference of temperament among the individuals investigated. There was at one extreme the slow, steady-going man who reacted with almost uniform speed on each occasion; at the other extreme was the nervous, high-strung individual who was frequently reacting prematurely, and whose mean variation in consequence was relatively great. Yet the mean variation, save in the choice-times, was extraordinarily low for such unpractised people.

III.—*Observations on the Sense of Touch and of Pain, on the Estimation of Weight, Variations of Blood-Pressure, etc.* By W. McDougall.

The power of discrimination of two points by the sense of touch was investigated in a series of fifty adult males. On half the number of subjects the observations were made on the skin of the thumb, of the second toe, and of the nape of the neck, and on the skin of forearm on all the subjects. There was a general correspondence of delicacy of discrimination in the different parts of the skin tested in any one subject. A few of the subjects showed a very much greater delicacy of discrimination than the others, while the latter showed a fairly uniform delicacy which is considerably greater

Digitized by Google

than that shown by the short series of white men who have been tested by the same method.

Observations on the sensitivity to pain produced by simple pressure on the skin were made by means of Cattell's algometer. With this instrument it seems to be possible to register accurately the point at which, with increasing pressure, a painful element is first perceived. The sensitivity to pain as thus determined seemed to be, roughly, inversely proportional to the delicacy of touch discrimination in the series of individuals, and in the whole series the sensitivity seemed to be distinctly less than in the short series of white men observed.

Similar series of observations were made on thirty children. It should be understood that the degree of pain produced was in all cases so slight as not to spoil the pleasure and interest of subjects in the proceedings.

The accuracy of localisation of touch sensations was also measured in a number of the same subjects, and temperature spots were mapped out in a few.

In the same subjects a series of observations on the delicacy of discrimination of differences of weight was made, and other series were made with the purpose of determining the degree of suggestibility of the people—the effect of size as appreciated by sight and grasp on the judgment of weight. It was interesting to find that although the abstract idea of weight seemed entirely new to the minds of these people, and no term in their language answered to it exactly, yet their power of discrimination of difference is at least as good as our own.

In the same series of people the blood-pressure was observed by means of Hill and Barnard's sphygmo-manometer during rest, muscular work, mental work and excitement, and slightly painful skin-pressure, and marked variations recorded under these conditions. No series of observations on white men under similar conditions have yet been made for comparison.

MUSIC: TORRES STRAITS, etc. MYERS.

Mr. C. S. Myers contributed some observations on Savage Music, dwelling on the interest of savage music for the anthropologist as contrasted with that of the musician. He considered the problem as to how far common fundamental physiological conditions lurking beneath the differences of music were covered over by the various psychological factors inseparable from distinct civilisations. Sympathy was, he considered, the basis of music, including musical and noise sounds, as long as they awakened the required feeling of pleasure in the minds of a suitable audience. The characteristic feature of Murray Island music was the lack of rhythm in the now obsolete tunes that were reproduced in the phonograph. In respect of the complexities of rhythm in other races, Mr. Myers said that from his own observations on the Malays of Sarawak, there were grounds for suspecting the futility of search after quarter-tone music, owing to irregularity of intonation.

Digitized by Google

ADDITIONS TO THE LIBRARY OF THE ANTHROPOLOGICAL INSTITUTE SINCE JULY 1ST, 1899.

AUTHOR.	WORK.	DONOR.
Professor W. Z. Ripley	The Races of Europe. 8vo. Appleton, New York, 1899.	Author.
H. M. Chadwick	The Cult of Othin. 12mo. Clay and Co., London, 1899.	Author.
C. de Kay	Bird Gods in Ancient Europe. 12mo. Allenson, London, 1899.	Publisher.
E. A. Fay	Marriage of the Deaf in America. 8vo. Gibson and Son, Washington, 1898.	Volto Bureau.
	Transactions of the South African Philosophical Society. 8vo. Cape Town, 1898.	S. A. P. Society.
	Australasian Association for the Advancement of Science, vol. vii, 1898. 8vo. Sydney.	Association.
F. Leverett	Pleistocene Features of Chicago. 8vo. Survey, Chicago, 1897.	Geo. and Nat. His. Survey.
J. E. Fillmore	The Harmonic Structure of Indian Music. 8vo. Putnam, New York, 1899.	Miss A. Fletcher.
Dr. A. B. Meyer	The Distribution of the Negritos. 8vo. Stengel, Dresden, 1899.	Author.
T. Masui....	Les Collections Ethnographiques du Musée du Congo. Imp. 8vo. Musée Bruxelles, 1899.	The Congo Museum.
Le Duc de Loubat	Mexican Manuscript Codex. 4to. Augers, Paris, 1899.	Le Dr. E. T. Hamy.
Dr. A. Hrdlicka	Description of an ancient anomalous Skeleton from the Valley of Mexico. 8vo. New York.	Author.
„ „	Study of the normal Tibia. 8vo. New York, 1898.	Author.
Professor W. Z. Ripley	A Selected Bibliography of the Anthropology of Europe. 8vo. Public Library, Boston, 1899.	Author.
W. H. Furness	Folklore in Borneo. 8vo. Wallingford, Pennsylvania, 1899.	Author.
Dr. J. D. Schmeltz	Tentoonstelling Van Japansche Kunst. 8vo. Haarlem, 1899.	Author.
	The Annual of the School at Athens. 8vo. Macmillan, London, 1896–1897.	Publisher.
Rev. H. W. Dearden	Modern Romanism examined. 8vo. Nisbet, 2nd, London, 1899.	Publisher.
Colonel R. C. Temple ...	A Theory of Universal Grammar. 8vo. Asiatic Soc., London, 1899.	Author.
J. Spurr	Atlas to accompany No. 31 Monograph. 4to. Geological Survey, Washington, 1899.	Geological Survey (Washington).
„	Aspen Mining District, Colorado. 4to. Geological Survey, Washington.	Geological Survey (Washington).
J. S. Newsbury.... ...	The later extinct Floras, North America. 4to. Geological Survey, Washington, 1899.	Geological Survey (Washington).
T. Kirk	The Student's Flora of New Zealand. 8vo. Mackay, Wellington, 1899.	Government (New Zealand).
E. T. Hamy	Memoirs D'Archéologie et, etc., etc. 4to. Paris, 1899.	Author.
	Australian Advancement of Science. 8vo. Vols. i–vi, Sydney, 1887–1898.	Exchange.
M. de Nadaillac	Les Progress des Etats-Unis. 8vo. Paris.	Author.
J. Mathews	Eaglehawk and Crow. Study of F. L. 8vo. London, D. Nutt.	Publisher.
C. S. Rutlidge	A Guide to Queensland. 12mo. Agent for Queensland, London.	Agent-General for Queensland.
W. T. Brigham	Hawaiian Feather Work. 4to. Honolulu Museum.	Museum.

Digitized by Google

CONTENTS—*continued.*

PAGE

On the Mediæval Population of Bristol. By Dr. Beddoe, LL.D., F.R.S. - 142

Note on a Skull from Syria. By W. L. H. Duckworth, M.A., Fellow of Jesus College, Cambridge. (With Plate XXIV.) - - - - - - 145

Some Australian Tree Carvings. By Herbert Perkins. (With Plates XXV–XXVII.) - - - - - - - - - - - - 152

Dialect Changes in the Polynesian Languages. By Rev. S. Ella - 154

ANTHROPOLOGICAL REVIEWS AND MISCELLANEA—

Notes on the Languages of the South Andaman Group of Tribes - 181
The Dolmens and Burial Mounds in Japan - - - - - - 183
The Dolmens of Japan and their Builders - - - - - - 183
Ethnology, in two parts - - - - - - - - - - 184
Der Periplus des Hanno - - - - - - - - - - 185
Bird Gods - - - - - - - - - - - - - 186
Authority and Archæology, Sacred and Profane - - - - - 186
The Kingdom of the Barotsi, Upper Zambesi - - - - - 188
The Races of Europe - - - - - - - - - - 188
The Cult of Othin - - - - - - - - - - 189
The Negritos - - - - - - - - - - - - 191
The Temple of Mut in Asher - - - - - - - - 191
The Philippine Islands - - - - - - - - - - 191
Among the Wild Ngoni - - - - - - - - - - 191
Vocabulary of the Gualluma tribe - - - - - - - 192
Centralblatt für Anthropologie, Ethnologie und Urgeschichte - - 196
Eaglehawk and Crow - - - - - - - - - - 197
Notes and Queries on Anthropology - - - - - - - 197
Anthropology at the British Association. Dover Meeting: September 13th to 20th, 1899. (With Plate XXVIII.) - - - - - 198
Additions to the Library of the Anthropological Institute since July 1st, 1899 - - - - - - - - - - - - 224

The Council desire it to be understood that in giving publicity to the Papers read before the Institute, and the discussions thereon, they accept no responsibility for the opinions or statements of individual authors.

Fellows of the Institute are earnestly requested to add copies of any photographs of anthropological interest which they may possess, or be able to obtain, to the collection in the library.

Digitized by Google

CONTENTS.

Nos. 1, 2. AUGUST–NOVEMBER, 1899.

PAGE

MEETING OF FEBRUARY 14th, 1899. C. H. Read, Esq., F.S.A., President, in the Chair - - - - - - - - - - - - 1

Swatis and Afridis. By Colonel Sir T. H. Holdich, K.C.I.E., C.B. - - 2

The Arab Tribes of our Indian Frontier. By Colonel Sir T. H. Holdich, K.C.I.E., C.B. - - - - - - - - - - - - - - 10

MEETING OF MARCH 14th, 1899. C. H. Read, Esq., F.S.A., President, in the Chair - - - - - - - - - - - - 20

The Secret Societies of West Africa. By H. P. Fitzgerald Marriott - 21

MEETING OF MARCH 28th, 1899. C. H. Read, Esq., F.S.A., President, in the Chair - - - - - - - - - - - - 28

Mitla: An Archæological Study of the Ancient Ruins and Remains in that Pueblo. By William Corner. (With Plates I–VII.) - - 29

MEETING OF APRIL 25th, 1899. Wm. Gowland, F.C.S., Esq., in the Chair - - - - - - - - - - - - - - 50

Ju-Ju Laws and Customs in the Niger Delta. By Le Comte C. N. de Cardi. (With Plates VIII–IX.) - - - - - - - - - - 51

Exhibition of Lantern Slides. By T. J. Alldridge, F.R.G.S. (With Plates X–XIII.) - - - - - - - - - - - - - - - 64

MEETING OF MAY 9th, 1899. C. H. Read, Esq., F.S.A., President, in the Chair - - - - - - - - - - - - - - 65

Ethnographical Notes on the Fang. By Albert L. Bennett, M.D., F.E.S. (With Plates XIV–XVII.) - - - - - - - - - - 66

MEETING OF MAY 30th, 1899. C. H. Read, Esq., F.S.A., President, in the Chair - - - - - - - - - - - - - - 98

Beginnings of Currency. By Colonel R. C. Temple. (With Plates XVIII–XXI.) - - - - - - - - - - - - - - - - 99

MEETING OF JUNE 13th, 1899. C. H. Read, Esq., F.S.A., President, in the Chair - - - - - - - - - - - - - - 123

Prehistoric Man in the Neighbourhood of the Kent and Surrey Border: Neolithic Age. By George Clinch, F.G.S. (With Plates XXII–XXIII.) - - - - - - - - - - - - - 124

Exhibition of Rude Stone Implements from the State of Gwalior, Central India. By Frederick Swynnerton, Esq., Simla - - - - - 141

SPECIAL JOINT MEETING OF THE INSTITUTE AND THE FOLKLORE SOCIETY, JUNE 27th, 1899. C. H. Read, Esq., F.S.A., President, in the Chair - - - - - - - - - - - 141

[P.T.O.

HARRISON AND SONS, PRINTERS, ST. MARTIN'S LANE, LONDON.

Digitized by Google

Title page

Price 10*s.*

HARVARD COLLEGE LIBRARY
OCT 20 1900
CAMBRIDGE, MASS.

THE JOURNAL

OF THE

ANTHROPOLOGICAL INSTITUTE

OF

GREAT BRITAIN AND IRELAND.

VOL. XXIX (NEW SERIES, VOL. II), Nos. 3, 4.

CONTAINING THE PAPERS READ BEFORE THE INSTITUTE FROM NOVEMBER 7th TO DECEMBER 12th, 1899.

All Letters and Communications for the Institute to be addressed to the Secretary, at the Institute, No. 3, Hanover Square, W.

LONDON:
PUBLISHED FOR
The Anthropological Institute of Great Britain and Ireland.
BY
KEGAN PAUL, TRENCH, TRÜBNER & CO.,
CHARING CROSS ROAD, W.C.

All Rights Reserved.

Digitized by Google

ANTHROPOLOGICAL INSTITUTE

OF

GREAT BRITAIN AND IRELAND.

OFFICERS AND COUNCIL FOR 1899–1900.

(Elected January 24th, 1899.)

President.

C. H. READ, Esq., F.S.A.

Vice-Presidents.

H. BALFOUR, Esq., M.A.
JOHN BEDDOE, Esq., M.D., F.R.S.
E. W. BRABROOK, Esq., C.B., F.S.A.
Sir JOHN EVANS, K.C.B., D.C.L., F.R.S.
A. J. EVANS, Esq., M.A., F.S.A.
FRANCIS GALTON, Esq., D.C.L., F.R.S.
Right Hon. Sir JOHN LUBBOCK, Bart., M.P., F.R.S.
Prof. A. MACALISTER, M.D., F.R.S.
A. P. MAUDSLAY, Esq., F.R.G.S.
Lieut.-Gen. PITT-RIVERS, D.C.L., F.R.S.
F. W. RUDLER, Esq., F.G.S.
Prof. EDWARD B. TYLOR, D.C.L., F.R.S.

Secretary.

WM. CROOKE, Esq., B.A.

Treasurer.

A. L. LEWIS, Esq., F.C.A.

Council.

W. M. BEAUFORT, Esq., F.R.G.S.
O. M. DALTON, Esq., M.A.
R. W. FELKIN, Esq., M.D., F.R.G.S.
H. O. FORBES, Esq., LL.D.
J. G. GARSON, Esq., M.D.
G. L. GOMME, Esq., F.S.A.
W. GOWLAND, Esq., F.S.A.
Prof. A. C. HADDON, M.A., D.Sc.
E. SIDNEY HARTLAND, Esq., F.S.A.
Col. Sir T. H. HOLDICH, K.C.I.E., C.B.
T. V. HOLMES, Esq., F.G.S.
Prof. G. B. HOWES, LL.D., F.R.S.
Sir H. H. HOWORTH, K.C.I.E., M.P., F.R.S.
Baron A. von HÜGEL, M.A.
Sir HUGH LOW, G.C.M.G.
R. BIDDULPH MARTIN, Esq., M.P.
J. L. MYRES, Esq., M.A., F.S.A., F.R.G.S.
J. EDGE PARTINGTON, Esq., F.R.G.S.
Sir CUTHBERT E. PEEK, Bart., M.A., F.S.A.
Prof. A. THOMSON, M.A., M.B.

Assistant Secretary.

J. APLIN WEBSTER, Esq.

Collector.

Mr. STRETTON.

MEETINGS DURING THE SESSION 1899–1900.

1899	TUESDAY,	November	7, 21.
	,,	December	12.
1900	,,	January	9, 30.*
	,,	February	13.
1900	TUESDAY,	March	13, 27.
	,,	April	24.
	,,	May	15, 29.
	,,	June	12.

Specimens are Exhibited, and Coffee served at 8 p.m.; Reading of Papers commences at 8.30.

Each Fellow has the privilege of introducing two friends (ladies or gentlemen) to the Evening Meetings.

*ANNIVERSARY MEETING.

The Council will meet at Five o'clock on the days of Ordinary Meetings.

Extracts from the Regulations respecting the Election of Fellows:—

Every person desirous of admission to the Institute as a Fellow shall be proposed and recommended by at least two Fellows, one of whom shall certify his personal knowledge of such candidate. (*Ladies are eligible as Fellows.*)

Each Fellow shall pay an Annual Contribution of two guineas, which may at any time be compounded for by a payment of £21.

The Annual Contributions shall become due upon election (unless such election takes place in the month of November or December) and in advance on the first day of January in each year afterwards.

There is at present no Entrance Fee.

Fellows residing in the country, as well as in London, can borrow books from the Library.

Persons who wish to become Fellows of the Institute are requested to communicate with the Secretary.

Digitized by Google

HARVARD COLLEGE LIBRARY
OCT 20 1900
CAMBRIDGE, MASS.

JOURNAL

OF THE

ANTHROPOLOGICAL INSTITUTE

OF GREAT BRITAIN AND IRELAND.

ORDINARY MEETING.

NOVEMBER 7TH, 1899.

C. H. READ, Esq., F.S.A., *President, in the Chair.*

The Minutes of the last Meeting were read and signed.

The election, as Fellows of the Institute, was announced of the following:—Mr. G. F. LAWRENCE, Miss S. E. RUCKER, Mr. A. S. QUICK, Dr. J. W. WILLIAMS, Mr. J. F. TOCHER, Mrs. K. LEE, Mr. F. W. CHRISTIAN, and Mr. R. C. MACLAGAN.

The PRESIDENT regretted that Lieut.-Colonel MACDONALD was prevented by illness from reading his paper.

Mr. WM. CROOKE then read Lieut.-Colonel J. R. L. Macdonald's paper:—"Notes on the Ethnology of Tribes met with during progress of the Juba Expedition of 1897–99," and Dr. GARSON exhibited a series of lantern slides illustrating the paper.

Discussion was carried on by Captain MALCOLM, Mr. CROOKE, Mr. G. L. GOMME, Mr. SHRUBSALL, Mr. BOUVERIE PUSEY, Sir THOMAS HOLDICH, and others.

The PRESIDENT, after pointing out the value of such papers, and the difficulty Lieut.-Colonel Macdonald must have had in collecting such information, amongst the other duties of his position, closed the proceedings with a vote of thanks to Lieut.-Colonel Macdonald for his paper, to Mr. Crooke for reading it, and to Dr. Garson for exhibiting the slides.

Digitized by Google

NOTES ON THE ETHNOLOGY OF TRIBES MET WITH DURING PROGRESS OF THE JUBA EXPEDITION OF 1897–99.

By Lieut.-Colonel J. R. L. Macdonald.

During the travels of the expedition which I had the honour to command, we came in contact with between thirty and forty native tribes, and were able to collect a series of notes on their languages, customs, and traditions, meagre indeed, but still of interest. In some cases the information is new, and in others it tends to support the views of previous travellers, or modify their speculations by the provision of additional data. The expedition had neither the time nor the scientific training necessary for the task of solving the many most interesting problems regarding the true classification and grouping of these various tribes in the general scheme of the African races, or of tracing the various migrations that must have led them to their present geographical distribution. That must be left to experts, and the expedition will be content if it has supplied a few additional facts to guide the experts to the solution of the problems.

The regions, in which the labours of the expedition lay, are singularly interesting from an ethnological point of view, comprising as they do the meeting-place of several great African families, the Bantu, the Negro, the Hamitic and the Masai or Nuba-Fulla. In endeavouring to compile a few notes that may be interesting, I would purpose to consider the language, customs, etc., of the tribes encountered in five groups, without prejudice to their ultimate inclusion in any of the great African races. The grouping I propose for the purpose of this paper is one that I was led to adopt from the apparent connection of the tribes, and whether or not it may be scientifically accurate, it is at all events convenient, as whatever race the group may be ultimately included in, it will probably carry with it all its component members. This grouping is as follows :—

Nuba-Fulla ?

Masai.
Kwafi.
Sambur or Kore.
Latuka.
Karamojo.
Turkana.
Donyiro.
Elgumi.

Langu.
Rom.
Lango or Wakedi.
Umiro.
Kimama.
Wahima ?

Suk ?

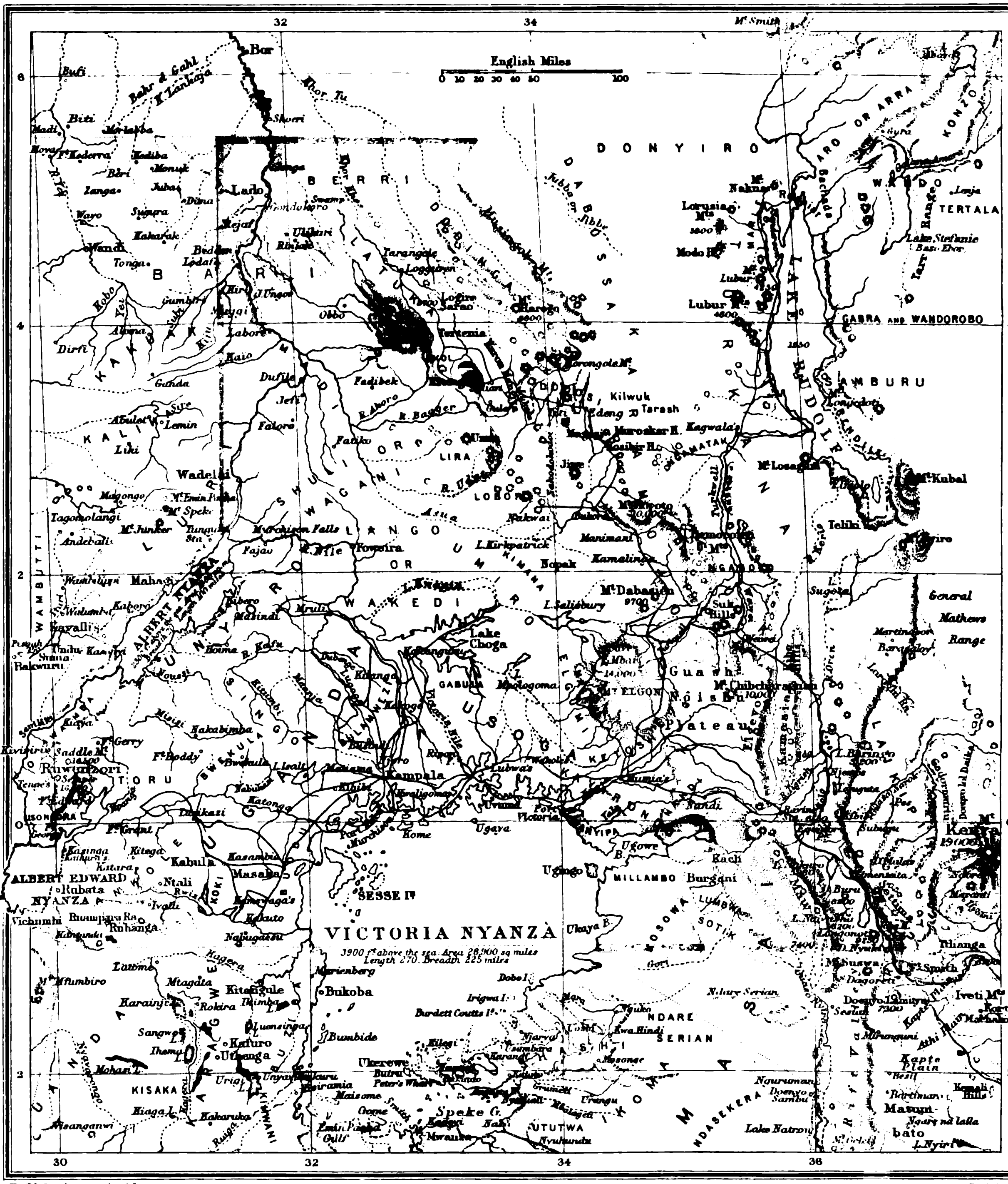
Suk.
Nandi.

Digitized by Google

Digitized by Google

I.—MAP OF UGANDA AND ADJOINING TERRITORIES ILLUSTRATING THE PRESENT DISTRIBUTION OF THE ALLIED TRIBES

By J. R. Macdonald, Lt. Col.



The Edinburgh Geographical Institute

J.G. Bartholomew.

EXPLANATION OF COLOURING

- Karamojo
- Lango Tribes believed to be allied to the Karamojo
- Masai and Latuka
- Suk-Nandi Group
- Negro
- Bantu
- Somali, etc.

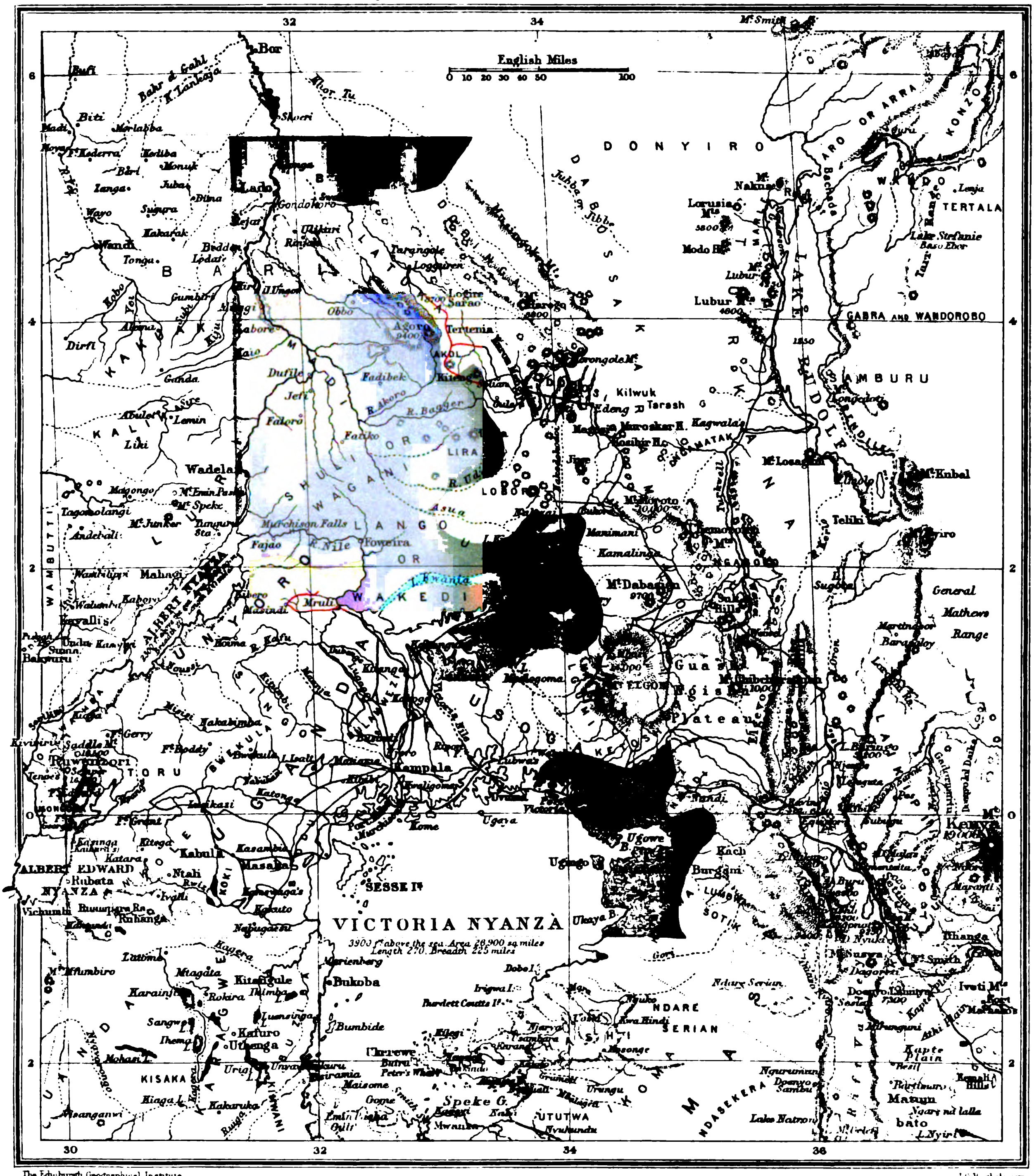
The relative territory of Eloegop, Suk-Nandi, and Karamojo is probably fairly reliable The contemporary distribution of the Lango, Bantu, and Negro Tribes as shown is however uncertain, and is here to be considered as only a suggestion

Route of Col. Macdonalds' Expedition shown thus:——

Digitized by Google

II.—MAP OF UGANDA AND ADJOINING TERRITORIES ILLUSTRATING FORMER EXTENDED DOMINION OF THE ELOEGOP (MASAI)

By J. R. Macdonald, Lt. Col.



EXPLANATION OF COLOURING

Karamojo	Suk-Nandi Group
Lango Tribes believed to be allied to the Karamojo	Negro
	Bantu
Masai and Latuka	Somali, etc.

The relative territory of Eloegop, Suk-Nandi, and Karamojo is probably fairly reliable
The contemporary distribution of the Lango, Bantu, and Negro Tribes as shown
is however uncertain, and is here to be considered as only a suggestion

Route of Col. Macdonalds' Expedition shown thus:—

Digitized by Google

Digitized by Google

Kamasia and Elgeyo.	Wakavirondo.
Lumbwa and Sotik.	Waketosh.
Lako.	Masowa.
Save, Sore, etc.	
Anderobo.	*Negro.*
Bantu.	Shuli.
Wagandu.	Nyifa or South Kavirondo.
Wasoga.	Madi.
Wanyoro.	Bari.
Watoru.	Beri.

Many of these tribes have been so fully dealt with by others that they need not be further referred to here, but the remaining tribes I propose to deal with by first (*a*) Considering the connection in language; (*b*) furnishing some information regarding their habits and customs; and (*c*) giving a few brief notes on their history as it could be obtained from their own traditions or deduced from those of their neighbours.

(*a.*) COMPARATIVE VOCABULARIES.

The comparison of languages by means of meagre vocabularies is unsatisfactory in many respects; but in the case of an expedition which travels rapidly and cannot afford the time for the construction of grammars, the comparison by vocabulary is the only one possible.

It must, however, be remembered that the vocabularies collected by the expedition were not taken from slaves at a distance from their own countries, but were in almost every case the result of actual travel amongst the tribes concerned.

Comparative vocabularies of twelve languages, in addition to Swahili (the general medium of conversation), are attached. Of these twelve, two, the Ogaden Somali and Borana Galla, were taken down from Somalis who accompanied the expedition for purposes of comparison with the other languages; as they may be of interest I have allowed them to stand in the tables accompanying this paper. Each vocabulary given shows about 108 words. Unfortunately Mr. C. Hobley, who had collected vocabularies of certain languages, could not furnish me with a list of the English words he used, and so only some forty words are common to his and my own vocabularies; still this is better than nothing and renders the two sets of vocabularies mutually useful.

The expedition vocabularies embrace the languages of the following tribes:—Usoga, North Kavirondo, Masai, Karamojo, Latuka, Nandi, Anderobo, Save, Suk and South Kavirondo. The people of Kamasia and Elgeyo talk the same language as the Nandi, and the Turkana and Donyvio have the same language as the Karamojo.

Mr. C. Hobley gives vocabularies of the following:—North Kavirondo, Muhasa, South Kavirondo (Nyifa or Nife), Elgumi, Nandi, and Lako.

Digitized by Google

As already stated some forty words are common to both sets of vocabularies, so we can, to this extent, construct a comparative vocabulary of the languages talked by some fifteen of the tribes in the area under discussion. Casati's vocabulary of Lur, which is stated by Emin to be closely allied to Shuli, has a good many words common to one or other set of vocabularies, and shows that South Kavirondo is allied to those languages; and as the Kwafi and Samburu languages are merely dialects of Masai, we may say that we can to some extent extend our comparison over nineteen languages.

With regard to the expedition vocabularies care was taken by questioning several men to secure accuracy in obtaining the correct corresponding word. That this was invariably successful is hardly probable; but still it is hoped that the results of our efforts towards strict accuracy will be found fairly reliable.

The vocabularies of Usoga, North Kavirondo, Masai, Karamojo, South Kavirondo, and Suk were obtained direct from natives of these tribes; the languages of the Nandi and Anderobo were got from a Suk Government interpreter; the Save vocabulary was taken down from a Swahili who had been long resident in the district and knew the language well; while the Latuka was from the Latuka Soudanese who had been some time in that country and had Latuka wives. Kiswahili was the medium of communication in every case except Latuka when Arabic was employed.

The words have been written in English characters as nearly phonetically as possible, but in dealing with savage languages and unfamiliar sounds it is very difficult to express the exact sound in English characters. The "l" and "r" are practically interchangeable in many cases, and the sounds of "p" and "d" may almost imperceptibly slide into "b" and "t," while the hard "g" and "k" are frequently nearly alike. Again there are some nasal sounds in Masai, Karamojo and allied languages that are difficult to express; these have been shown by "ng" or "n" as most nearly representing them.

We may now glance at the general results, Masai, Kwafi (or more properly Guash Ngishu, for Kwafi is a Swahili term), and Sambur (or Kore) are three divisions of the one tribe, the Eloegop, and speak what may be considered one language with slight dialectic differences. This was noticed by Farler, as regards the two first-mentioned, from vocabularies made out by missionaries before Masailand was actually visited by Europeans. Extensive vocabularies of Masai and Kwafi have been compiled by Krapf and Erhardt, and Cust groups this language with the Nuba-Fulla.

We found that the language most nearly allied to that of the Eloegop, though widely separated in geographical position, was that of Latuka in the Nile Basin. The classification of this language had previously been a matter of dispute. Cust in his *Modern Languages of Africa* places it in the Negro group, but notes that Baker in his *Nyanza* remarked that it was quite distinct from that of the Nile tribes he met. Baker was inclined to think that the people of Latuka were Gallas, while Emin placed them among the Langos, whom Cust classes in the

Digitized by Google

Hamitic group, and Ravenstein in 1884 from Emin's vocabulary considered the Latuka were Masai. The Latuka can hardly be called Masai, but the great similarity of their languages, extending as it does to some thirty per cent. of the words, would appear to show a common origin.

The Latuka and Eloegop must, however, have been separated for a long interval as there are marked differences in the intonation of certain words, the Latuka being on the whole the softer language.

Closely allied to the language of Eloegop and Latuka, but with rather more divergence, comes that of the Karamojo Turkana and Donyiro, which has, however, sufficient similarity to indicate a common origin. It is noticeable that the syllable "ak" which begins so many Karamojo words is not so very different in sound, as might be supposed by the spelling, from the "ng" which appears in Masai, the "g" of which is very hard and almost "k".

I was unable to get a comparative vocabulary of Elgumi, but fortunately Mr. C. Hobley secured one, and this shows that the language of the Elgumi may be considered a dialect of Karamojo. I may here mention that Elgumi is a name applied by the Masai not only to the tribe west of Mount Elgon but also to the Turkana and possibly to the Karamojo. It is not a name recognised by the tribes themselves, and would appear to be a nickname applied by the Masai to their tribes on account of their well-developed noses. The term Elgumi is thus somewhat indiscriminately used by the Masai for the Karamojo tribes, in the same way as "Lango" is used by the Nile tribes to the west to designate the same people.

We thus find the Masai, Guash Ngishu (or Kwafi), Sambur (or Kore), Latuka, Karamojo, Turkana, Donyiro and Elgumi speaking languages which would appear to clearly indicate a common origin.

So far we have been on fairly solid ground, but with regard to the other tribes I have provisionally placed in the same group, information at our disposal is hearsay. The people of Langu and Rom were visited by the expedition, but vocabularies were not collected. We were, however, told by our Karamojo guides that these small tribes were allied to themselves and spoke a nearly identical language. I am inclined to think the same thing applies to the Lango or Wakedi, the Umiro and Kimama. It is doubtful whether these last names do not refer to one and the same tribe. The Karamojo know the powerful tribe dwelling north of Lake Salisbury as the Kimama and say their territory extends far to the west. They do not know the term Lango or Wakedi and appear to know little of Umiro. The territory they ascribe to the Kimama would appear to be so extensive as to embrace a considerable portion of the country which is said by the Waganda, Wangoro and Shuli to be occupied by the Lango and Umiro. I have already pointed out that "Lango" is a far-reaching term as employed by the Nile tribes and is used to embrace the Karamojo themselves. Wakedi or Bakedi (the naked people) is simply a Luganda and Lungoro nickname applied to the Lango. I am accordingly inclined to think that the tribe might be called Umiro and that the

Digitized by Google

Umiro are known on the east as Kimama and on the west as Lango. They would, however, appear to be allied in language to the Karamojo, but it appears to me that they are not a pure bred tribe, but an admixture of Karamojo and Nilotic and perhaps aboriginal blood. It is to be noted that while the Eloegop, Latuka, and Karamojo are largely pastoral and dwellers on the more open plains, the peoples of Rom, Langu, Umiro and Lango are for the most part highlanders, while the Kimama are dwellers in swampy country. Still the balance of evidence would seem to show that these last mentioned tribes are more or less allied to the Karamojo group.

This latter group would appear even more extensive, as our Swahilis told us of another tribe north of Karamojo called Dabosa which speaks the same language as Karamojo, and the Dodinga (or Irenga) tribe would also appear allied to this. The group of languages we have so far considered are apparently connected to the extent of 30 or 40 per cent. of their words, but now we come to another group, the Suk-Nandi, which, while possessing a still larger percentage of words common within the group, has comparatively a small percentage of words which appear in the languages of the Masai group. The percentage is lowest, about 5 per cent., in the case of the Latuka, which is geographically most removed, and rises to about 11 per cent. in Masai and Karamojo, which are conterminous with the Suk-Nandi country. It is interesting to note that the group now dealt with has almost the same percentage of words common to the language of Ogaden Somali, a Hamitic family.

It had previously been noted that the Nandi, Lumbeva and Sotik were the same, or a clearly allied people, and more recently that of Nandi Kamasia and Elgeyo tribes appeared identified. Mr. C. Hobley, to whose study of the languages of his district we owe so much, further established a close connection between the Nandi, Lako and Save. It was, however, left for the expedition not only to confirm Mr. Hobley's deductions, but also to bring into the same group the Suk, and an even more interesting fact, the Anderobo, formerly classed as a Helot tribe.

With the exception of the Anderobo, who are Helots to the Masai and are admitted by their masters to have been the original inhabitants of Central Masailand, the remaining tribes of this group are mountaineers, who not only possess what is almost a common language but who also show a great similarity in many of their customs.

These connections, together with the present geographical distribution of the tribes and their own legends, would show that they form fragments of a large tribe, which occupied an extensive tract of Masailand and South Karamojo prior to the advent of the Eloegop. This is further confirmed by the inclusion of the Helot Anderobo in the Suk-Mandi group of languages. The northern members of the group show more connection in loan words with the Karamojo, the southern members with the Masai, and this is in harmony with the tribal traditions to the effect that they were respectively partially dispossessed by Karamojo and Eloegop.

Digitized by Google

A further interesting fact in this connection is that the Suk headdress favour the Karamojo as the Mandi one does the Masai.

The well-marked Bantu group need not be dwelt on. But it may be interesting to note a few points regarding Ketosh and Masawa. I have called the Bantu tribe north of the Nzoia River and south of Mount Elgon Ketosh, and confined the term Masawa to the region west of Mount Elgon. It must however be understood that Masawa is sometimes used in a wider sense to embrace Ketosh, and that the inhabitants of both regions would appear to belong to one tribe or to be very closely related. Mr. Hobley, who first established that there were Bantu speaking people on the west of Mount Elgon, was inclined to show a wedge of Elgumi separating what I call Masawa into a northern and a southern portion. During our journey to the west of Mount Elgon, however, we found tribes he had classed with the Elgumi; the Ngoko, for instance, were Bantu, and on discussing this point with Mr. Hobley on our return he was inclined to agree with us that the western slopes of Mount Elgon might all be classed as Bantu. The people of Ketosh and Masawa, though they have much in common with the Bantu Kavirondo, have certain marked resemblance to the Wasoga, and it is interesting to find that the language of Usoga would appear to bear a far closer connection with Masawa than with North Kavirondo.

Of the Negro group of tribes I have little to say. Mr. Hobley had already established the fact that the people of South Kavirondo or Nyifa (Nife) belonged to this group, a fact borne out by the connection between the Nyifa and Lur vocabularies. The Lur and Shuli languages are closely connected, as has been pointed out by Emin, who also found they were so closely related to Shilluk, that his Shilluk soldiers could easily make themselves intelligible to the Shuli. The Bari and Beri are supposed to be connected with the Dinka, and the Madi with the Nyambara (Cust) or Makaraka.

There are evidently fragments of still older tribes scattered about in this great area the study of whose languages would be interesting. Thus the Lako, Save and Masawa told us of a small scattered tribe, called the Elgonyi, who dwell on the upper slopes of Mount Elgon. Similarly the people of Latuka said that amongst the lofty mountains south-west of the Latuka valley, there were a number of small tribes with a language differing from that of the Latuka and Nile tribes. Donaldson Smith found a small separate community called Dume, north of Lake Stephani; and Austin was not able to connect the Marle north-west of Lake Rudolf with the surrounding tribes, though they bore some resemblance to the Masai or Sambur.

(*b.*) Notes of Customs of Various Tribes.

The Masai group including the whole of the Eloegop, the Latuka, the Karamojo, Turkana, Donyiro, and Elgumi are, for the most part, pastoral dwellers in open grass plains. Agriculture is, however, practised to some extent more especially in Latuka, Karamojo and Elgumi. With the one exception of Latuka,

Digitized by Google

where there is a recognised king, the remaining members of the group are split up amongst a number of petty chiefs, who, however, combine in case of war. Internal strife is, for the most part, avoided by strict laws regarding the settlement of disputes; this has, however, become rather lax amongst the Eloegop, who have in consequence become much weakened by civil war and are fast losing their power.

The members of this group dwell in considerable villages or groups of villages, permanent and large in the case of Latuka, semi-permanent in the case of Karamojo and Elgumi, and movable amongst the Eloegop and Turkana.

It is doubtful what is the religious belief of the Latuka, but the other members of the group believe in one Supreme Being and in a future life, though there is also a belief in the power of rain and locust doctors.

There is amongst all much the same general organisation for war, and two fighting chiefs are appointed on mobilization. The fighting weapons are spear and shield; bows and arrows are hardly used at all. A few old men amongst the Masai possess these weapons, but poison is not employed. The northern members of the group, however, use the throwing spear as a missile. All the members of the group are brave and courageous and are much feared by their neighbours. They are, however, open and manly, and not given to treachery as a rule.

The tribes to the west, whom I have already mentioned as being probably of mixed origin though allied to the Karamojo, are more agricultural and dwell in more difficult country. They also appear to be more treacherous, but use much the same weapons as the Karamojo.

The knowledge of working iron, dressing hides, and making pottery is universal. The males are, for the most part, naked; the females more or less decently dressed.

In view of the recent medical theory on the connection between mosquitos and malarial fever, it is interesting to note that amongst some members of the group it is a well-established article of belief.

The following more detailed account of the customs, etc., of the Masai and Karamojo are given:—

Masai.

The men are mostly tall, the women of medium height. The hair is woolly. Prognathous features are never seen. Their muscles are not, as a rule, well-developed, but they are active.

Mode of Subsistence.—Mainly by pastoral pursuits. Cooking is primitive when obliged to eat vegetable food, this is prepared by boiling; but they live, when possible, on milk and meat, the latter raw, or nearly so.

Their huts are little more than dome-shaped shelters, either thatched or covered with hides, each with a small door. A collection of huts is enclosed by a thorn zareba. If obliged by scarcity of cattle, sheep, or goats to take to agriculture, they grow millet.

Religion and Customs.—A young man is not supposed to marry until he has

Digitized by Google

blooded his spear. He sends a jar of honey or small present to the parents of the girl he wishes to marry. If they accept this, it is a sign his suit is approved of. He then sends four oxen, and three goats, and the bride's mother brings the girl to his hut, where the bridegroom has milk in readiness. The bride refuses to enter until she is given a goat. There is no ceremony, but the bridegroom wears the bride's skin petticoat, smeared with fat and red earth for a month after marriage. There is no limit to the number of wives. A wife who misconducts herself three times may be returned to her parents, who refund the present received from her husband.

Women with child are fed on light diet. After birth both mother and child are given the fat of goats, and a mixture of blood and milk. The first appearance of milk teeth on the left before the right is considered a bad omen. A child is named after two months. On death a chief may be buried; lesser people are carried outside the kraal and left to the hyenas.

The Masai believe in one Supreme Being, called "Ngai," and in a future state. The Supreme Being is always invoked for success on the war-path.

Before starting on the war-path, the Leibon is consulted, and medicine made. The warriors then, for some time previous to the start, retire into the jungle and eat flesh, which is supposed to make them fierce.

Two fighting chiefs are selected, and the war party assembles. An ox is then killed, and the Leibon makes a fire; each warrior lights his fire from the central one, and after the ceremony is irrevocably committed to the war-path.

In dividing spoil, a place is selected some four days' march from home. The war party then select nine men as arbitrators, all of whom must be good warriors. These arbitrators then call out the warriors one by one, and allot to each his share. If any man objects, his objection is considered, and, as an ultimate resort, he fights one of the arbitrators, with knobkerries and shields as a rule. If he fails to defeat the arbitrator, he gets nothing; if he kills him, he is himself put to death.

If in peace a man kills another, all his cattle are given to the victim's father. If he wounds another, nothing is done if the wounded man recovers; but if he is permanently disabled, a fine of oxen up to nine is paid.

In settling serious disputes by oath, each disputant takes hold of a goat or sheep, which is then cut in two. This is done in presence of witnesses, and the matter thus settled is not supposed to be reopened.

A minor oath as to a statement is taken by biting a piece of grass.

Arts and Manufactures.—Raw hide is made into shields and scabbards, and used for clothing.

Tobacco is smoked in pipes or used as snuff.

A fermented liquor is made from millet.

Their ironwork is manufactured for them by their subordinate Wanderobe.

Personal Ornaments.—The lobule of the ear is pierced and enormously distended; they wear a cylindrical block of wood in the aperture.

Digitized by Google

The hair of both sexes is plastered with grease and wet clay, and plaited into a number of small tails.

An operation resembling circumcision is practised on the men, and a special mutilation on the women.

The ordinary dress of the men consists of one or two goat-hides; they have no idea of decency; but the women are well covered with similar hides.

Both men and women plaster the body with grease, generally mutton fat, and red clay. The married women shave their heads; they also wear a high collar of rings of iron superimposed one above another; the forearms and the legs, for several inches above the ankle, are covered with similar rings.

When in fighting dress, the men wear an arrangement of feathers in a ring surrounding the face, a skin, generally of the Colobos monkey, fastened round the neck and hanging down the back, and strips of Colobos hide round the ankles and surrounding the leg just below the knee.

The chief weapons are spears, swords and shields. The spear is a characteristic shape, and meant only for use at close quarters; the blade is of the shape of a double-edged, straight sword, and is of great length; the shaft, of wood, is merely long enough to afford a grip; the blade is balanced by a long pointed, cylindrical piece of iron as a pommel.

The swords are usually short; they are of a spatulate shape and double-edged. The grip is wound round with a strip of hide. The scabbard is of wood covered with hide.

The shield is large, oval, and convex in front. It is painted in red and white clay pigments. The devices used are various.

Bows and arrows are not unknown, but are not used in action, being mostly confined to the old men.

Barter.—Brass and wire, especially iron wire, are in demand. Beads and cloth are also taken in exchange for native products.

Karamojo.

The men are almost nearly all well over medium height. Many attain a height of 6 feet 2 inches, and several individuals of the height of 6 feet 4 inches or 5 inches were observed.

The physical development is, as a rule, magnificent. The only peculiarity in build is that the clavicle is often short, so that an appearance of narrowness is given to the shoulders.

They are active, and run with exceptionally good action.

The women are of medium height. The prognathous type is very rare; the features are generally well developed.

The tribe has a great reputation as warriors.

Mode of Subsistence.—Chiefly by agricultural pursuits, they have also large herds of cattle, sheep, goats and donkeys.

The chief crop cultivated is millet.

Digitized by Google

Agricultural implements consist of hoes, either with a long or short shaft.

The millet is cooked either by parching the grain or by heating a mass of millet flour with water.

The huts are small and round, with wattle walls and conical thatched roofs. The furniture consists of small wooden stools, also used as pillows at night.

Religion.—An indefinite belief in a Supreme Being and in the ghosts of ancestors appears to constitute their faith. The Supreme Being is known as "Akuja," and is invoked to protect the crops and for success in war.

Dead bodies seem, as a rule, to be merely deposited outside the villages to be eaten by hyenas, etc. The bodies of chiefs are, however, buried.

Marriage is not a matter of barter as amongst most tribes. The girl can veto the arrangements, and hence is regularly courted, her parents not interfering in any way until her wishes are known.

If a wife misconducts herself three times she may be returned to her father's house, the latter returning to her husband the present originally received. There is no limit to the number of wives.

There are strict rules regarding disputes, which, if serious, are adjudicated on by a council of chiefs. Homicide is severely repressed. Murder is punished with death. Accidental homicide may be pardoned the first time, but a second case is punished with death.

In war two fighting leaders are selected by the council of chiefs, and under these leaders are the various communities each under its own local chief as his representative. The division of spoil is carefully regulated.

When a child is born it is given blood as well as milk. If it develops milk teeth on the left side before the right, it is a bad omen, and a goat is sacrificed; but the child is not put to death as amongst some other tribes. The child receives a name which, in the case of a boy, is altered when he has been on the war-path. There is no fixed rule against a young man marrying before he has killed an enemy or been on the war-path, but as this is a warlike tribe and the women are allowed a voice in matrimonial arrangements, it is more or less a custom that a young man must distinguish himself in war before marrying.

They believe in omens, and before a raiding expedition consult the entrails of a goat.

They also believe in "medicine" for production of rain and to ward off locusts. In the former case a black ox is killed and its blood caught and mixed with water in an earthen pot; a fire is then lighted and extinguished with the blood and water. Rain is supposed to follow if there has been no irregularity in the ceremony.

To ward off locusts a red-headed goat is selected and killed by a blow on the head; its stomach is then taken out and cast in the direction from which the locusts are coming; this is supposed to turn them.

A solemn oath is taken in the following way: A black ox is selected and speared, the interested parties then take hold of a leg each, and these are cut

Digitized by Google

from the body: each then partakes of the marrow from the leg he has thus received.

Arts and Manufactures.—A rude kind of black earthenware pottery is made.

Tobacco is smoked; the pipe in common use is fitted with a gourd, which is filled with water, through which the smoke is drawn.

The only intoxicating liquor is a fermented drink made from millet.

Iron is the only metal worked; their weapons and implements are well made.

Personal Adornments, etc.—Marking by raised cicatrices is practically universal. Ear ornaments consist of a number of small rings, passed through the free edge of the ear. The lower lip is usually pierced, and a small piece of wood, ivory or brass wire inserted.

A characteristic ornament worn by men of importance is a collar formed of rings of iron lying one above another, and kept in position by vertical stays of the same metal. The arms are generally decorated with large bracelets of ivory.

The headgear of the men consists of a large mat of hair worn on the back of the head, and secured by a string passing round the forehead. This is supposed to be made from the hair of the wearer's ancestors. The men go about absolutely naked—the women wear small skins.

Circumcision is not practised.

The women wear necklaces of imported beads, and also made of small circular pieces of ostrich egg-shells, and of the vertebræ of snakes, with the ribs removed.

Weapons consist of spears and shields. The spears are formed for either thrusting or throwing; the heads are small, and of a bay-leaf shape; the neck of the blade is long and forms a considerable portion of the shaft. The edge of the blade is kept very sharp, and is protected by a rim of hide. The shields are very small, of an oblong shape, with concave lateral edges. The ivory bracelets worn on the forearm are very long, and are apparently so made as a means of protection. Knobkerries are also used, both for striking and throwing.

Many warriors also wear a circular iron bracelet, with a sharp cutting edge, for fighting at close quarters; the edge of this is, like the spear-head, protected by a leather rim, which can be sprung off at once; to prevent this iron disc cutting the wrist, it is set into a leather bracelet, which protects the skin.

The expedition was a long time in the country of Karamojo, and our relations with this people were most friendly throughout. This was much facilitated by the fact that they had a tradition that white men would ultimately come to rule the country. As we were the first white men to enter Karamojo, the natives said the tradition had been fulfilled, and that the country was ours.

The Karamojo were a singularly honest people, the most honest savages I had ever met. We bought large quantities of food from them, some 400 sacks of grain, the rate of exchange being one goat for a sack of millet. They always expected to be paid in advance, and on stating how many sacks they were prepared to provide, took away that number of goats and empty bags. In one,

Digitized by Google

two, or three days according to the distance of their homes from camp, they returned with the grain, and in no single case were they dishonest. On another occasion we paid a man seven goats to guide us for a month. After three days, however, he said he did not know the road we proposed taking and would rescind the contract. With this intimation he disappeared, and it was not until many a month later that we got back to our standing camp at Titi, when I found, somewhat to my surprise, I admit, that the absconding guide had returned the seven goats to the European in charge of the camp.

They have a very practical way of encouraging industry in the young. A child gets a smaller ration than an adult. But when the child grows up, and complains that the reduced ration is no longer sufficient it is presented with a hoe and told to assist in the common cultivation, if it expects an adult's fare.

The *Suk-Nandi group* are mountaineers and dwellers in forest regions. They have this in common that they do not live in villages, but in scattered hamlets of one or two houses, each with its own small patch of cultivation which produces little more than is necessary for the inhabitants. These patches of cultivation are, however, often irrigated with some skill. The natives are not, however, dependent on agriculture alone, as they have considerable flocks of goats and sheep and some cattle. Fowls are also kept, which is not the case amongst the Masai and kindred tribes. Amongst the Suk group of tribes both sexes are of medium height and slightly built. They are, however, active. The features are generally good, and only amongst the Suk and Anderobo does slight prognathism exist.

The tribal organisation is more poorly developed than amongst the surrounding tribes, and the power of combination seems small except perhaps amongst the Nandi and Suk.

The weapons used are bows with poisoned arrows, spears and shields. The members of this group are treacherous and unreliable with a few exceptions. They appear to have a vague belief in a Supreme Being, but very little is known of their religion.

Skins are cured, rude earthenware made, a fermented drink is prepared from millet, and iron is worked in the various districts, except Save, where iron implements are imported.

Except among the Suk, no disfigurement except ear-piercing is practised. Ear ornaments, generally of iron or brass, are worn in a perforation of the lobule. The males are naked; the females wear a short petticoat. The form of headdress is various. The Suk use the felted hair bag of Karamojo, while the Nandi, Lako and Save affect the Masai style.

A more detailed description of the Suk is given below:—The men are of medium height; the women are short in stature. Slight prognathism is common. Muscular development is fair.

Mode of Subsistence.—Those who dwell in the hills live by agriculture;

Digitized by Google

irrigation is employed. Those who live in the plains, in the east of the Suk country are pastoral. Game is caught, chiefly by loop snares attached to heavy logs. The millet, which is the principal grain cultivated, is made into a coarse meal and cooked as a stiff porridge.

The huts are circular in plan, the walls made of upright poles plastered with mud, and the roofs, which are dome-shaped, are thatched. The houses are scattered and are not stockaded.

Iron hoes are used for cultivating.

Religion and Customs.—The Suk believe in a Supreme Being called "Akisomlorot," and have some idea of a future state. They pray for success in war. They do not appear to believe in rain or locust doctors.

A young man may marry before he goes on the war-path. He presents the parents of the girl he wishes to marry with a sheep. If they accept this, and thus signify that they agree, he returns in two days with a present of cattle and takes the girl away. If she objects, he waits and catches her outside the house and takes her to his hut. This relic of marriage by capture was also noticeable amongst the Save, where, however, the bridegroom may be assisted in the pursuit of the girl by a party of his friends.

On reaching the bridegroom's hut, the bride refuses to enter until the child of a neighbour is produced. With this in her arms she enters the bridegroom's house. There is no further ceremony.

If, as a wife, she misconducts herself she is sent back to her parents, who refund her price in cattle.

A woman with child is dieted. The child is named by the mother four days after birth. If a boy, he retains this name until his return from his first war-path, when his name is changed. If milk teeth first appear on the left side, it is a bad omen, and the child is not suckled, but fed on goat's milk. The child is weaned after three months.

The dead are carried into the bush. Even the body of a chief is left unburied, but an ox is slaughtered by the body, and the flesh of the ox may not be eaten by any one.

The Suk, like the Nandi, appear to be capable of acting in bodies in war, and select two fighting chiefs. There are no elaborate preparations before starting on the war-path, although the warriors are supposed to eat as much meat as possible before taking the field. Ostrich feathers in their hair are a sign that they are on the war-path.

Their arrangements for dividing the spoil would also appear primitive. The two chiefs take their share and the balance is divided anyhow. In the adjustment of the inevitable disputes that arise, the use of spears is not allowed, but sticks and knobkerries may be employed.

If one Suk in peace time kill another, he is fined all his cattle, but is not put to death; if he only maims he has to pay ten cattle. Thieves are punished by being beaten with sticks.

Digitized by Google

Disputants generally exchange spears as a sort of oath that they will abide by the settlement arrived at.

Arts and Manufactures.—Skins are cured, but not made into leather. A rude kind of earthenware is made. Millet is grown and the fields are often irrigated by small channels.

Tobacco is grown, and used as snuff. A fermented liquor is made from millet, and largely consumed. Iron is worked.

Personal Ornaments, Disfigurements, etc.—Some of the men are marked with patterns in raised cicatrices on the chest. The two central lower incisors are removed. Ear-rings of wire are worn by the men in the lobule, and a few also wear a ring in the septum of the nose. The lower lip is always perforated in the male sex; in this perforation is worn a pendant wire ornament from 4 to 6 inches in length. The hair of the men is commonly plastered with mud on the top of the head, and ornamented with feathers. Men of importance wear the long hair bag (*shoalip*) of the Karamojo. In either case a piece of wire is inserted into the hair posteriorly, and curved forward over the top of the head. The women wear their hair in the natural state. The men are generally naked except for the skin of a goat or monkey depending down the back. The women wear two or three goat skins fastened round the waist. Circumcision is not practised.

Their weapons are spears, shields, bows and arrows. The spears are used either for throwing or stabbing. The blades are small, and of a bay leaf shape; the butt end is protected by a small sharpened pommel and the edge of the blade is protected, when not in use, by a rim of hide.

The shields are of wicker-work, and are oblong in shape, averaging about 3 feet in length, and 9 inches in breadth. The bows are well made, and the arrows have generally detachable thin wooden points which are poisoned and break off in the wound. A curved finger knife projecting, like a claw, from the finger ring, is also sometimes worn.

The members of the Bantu and Negro groups have been so fully described by others that it is unnecessary to deal with them in detail here, and I will conclude this paper with a few notes on the history of the tribes as gathered from their own legends and traditions.

(*c.*) Notes on the History of Certain Tribes as Regards Their Present and Past Geographical Distribution.

This is a somewhat difficult matter as the data with which we have to work are very meagre, and it is not improbable that some of the deductions to which I have come may be challenged or modified by others. But in dealing with such primitive peoples, it is very difficult to obtain any traditions as to their origin or migration, and I shall confine myself to the expansion, contraction and movements of the tribes concerned within the area considered, and leave the larger question of their actual origin to experts.

Digitized by Google

Dealing first with the Eloegop, we find a tradition that they came from the country east of Lake Rudolf. Extending southward they conquered the whole of the grass lands adjacent to the meridional rift, enslaved the Anderobo there, occupied the plateau of Lykipia and nearly exterminated the "Senguer," who dwelt on the Guash Ngishu plateau.

As "l" and "r" are interchangeable "Senguer" of the Juba expedition is evidently the same word as "Jangwel," a term which Mr. C. Hobley found was applied by the Nandi to designate their tribe. Still spreading onward the Eloegop occupied the grass lands far to the south, as far as, or even beyond, Mount Kilimanjaro. They then divided into three tribes, similar in language and customs, but with a certain internal jealousy gradually growing into open war. The Sambur retained the country east of Lake Rudolf, the plateau of Lykipia and the meridional rift as far south as Baringt. The Guash Ngishu branch occupied the equatorial portion of the meridional rift and the grass plateaux on the Guash Ngishu and Mau; the Masai extended from Naivasha to Kilimanjaro. Civil war broke out between the Masai and Guash Ngishu who were helped by their kinsmen of Lykipia. After some initial defeats, the Masai detached the Sambur of Lykipia from the hostile alliance and then crushed the Guash Ngishu so utterly that the latter could no longer hold their own against the dispossessed Nandi and their kindred, and ceased to exist as a tribe. They are now scattered dwellers in Nandi, Kavirondo or Ketosh.

The Sambur weakened by the civil war were attacked by the Suk who lived on the southern portion of the Karamojo plateau, and were being expelled from their country by an advancing Karamojo wave. Under the pressure of the Karamojo the Suk migrated west and conquered from the enfeebled Sambur that portion of the meridional rift north of Lake Baringo, thus practically cutting off the Sambur of Njemps from those of Lake Rudolf. The latter had apparently to deal with the growing power of the Rendile, who show close affinities in language and customs with the Somali, and the isolated Sambur of Njemps were shorn of their power under the attacks of two small villages near the south of Lake Baringo. The Sambur of Lykipia, weakened by war and isolation and impoverished by cattle plague, were in turn subject to attacks by the Rendile, and are now almost, if not quite, destroyed. Thus the once great dominion of the Eloegop is now represented by the southern branch, the Masai, and these, who suffered very much by their civil wars, the cattle plague and from small-pox, are perceptibly weakening in power, and signs are not wanting that a further split is in course of formation between the northern and southern Masai which will still further weaken this once powerful and much dreaded tribe.

In this sketch of the Eloegop, based on their own traditions, I have not referred to Latuka, as I could gather nothing to show any trace of the migration which separated these peoples, although their common origin would appear to be beyond a doubt.

But in tracing the migration, southward, of the Eloegop, their great dominion

Digitized by Google

and their gradual decay, we have incidentally arrived at certain evidence as to the relative antiquity within the geographical area considered, of certain other tribes. The Anderobo, Nandi and Suk must have been anterior to the advent of the Eloegop, while the Karamojo migration southward would appear of more recent date.

Passing on to the Suk-Nandi group, we find that they comprise amongst their members the Anderobo, and the Nandi (Sanguer or Jangwel) who were admittedly prior to the Eloegop, and also find that this group of tribes embraces many others who are now for the most part dwellers in the mountainous and forest regions in this part of Africa. These tribes, often small and insignificant in themselves, would appear to be broken fragments of a powerful and widespreading people who occupied an extensive trait prior to the advent of the Eloegop, Karamojo and Bantu conquerors.

It is also interesting to note that this group of tribes shows more connection in language with the Ogaden Somalis than do the tribes which now occupy the great expanse of intervening country. This is still more remarkable when we bear in mind that the northern Somalis rather look down on the Ogadens as having been more contaminated by mixture of blood with the aboriginal inhabitants.

The greater antiquity of the Suk-Nandi group as compared with the Eloegop is clear, and the Suk traditions, that they were dispossessed by the advance of the Karamojo, subsequent to the migration of the Masai, would appear evidence that the Karamojo wave is of still more recent date. There is also confirmation of the Suk claim to have formerly occupied the south of the Karamojo plateau, in the fact that the inhabitants of the Chemorongi mountains, which run as a wedge into the Karamojo and Turkana country, are Suk, and that small completely isolated colonies of Suk still dwell on the lofty mountains of Dehasien, Moroto and Kamalinga, in South Karamojo. The people of Save, who belong to the Suk-Nandi group, also say that they formerly occupied the plains north and east of Elgon until dispossessed by the Eloegop and Karamojo. The southward movement of the Karamojo would appear to have been at a much later date than that of the Eloegop, although the connection of their language and customs point to a common origin. The Karamojo themselves appear unknown to the Masai, but their kindred the Turkana are called the Elgumi.

The Karamojo, Turkana and Donyiro are branches of one tribe, of the same blood, language and customs, who have gradually moved southward and westward. The Elgumi west of Mount Elgon appear to be an offshoot of the Karamojo, and it is interesting to find that Mr. Hobley has discovered that only some 50–60 years ago these Elgumi threw off a colony which intruded into the Bantu people of Kavirondo and formed a settlement at Kikelelwa. This, coupled with the southern advance within the same period of the Karamojo on the east of Mount Elgon, would appear to show that the vitality of this great and warlike tribe is not yet exhausted. The Karamojo would also appear to have reached the Victoria Nile,

Digitized by Google

but the so-called Wakedi there are not pure Karamojo. It is more likely that while the Karamojo have conquered widely it is only on suitable country like the open grass plains that they retain their full characteristics, and in an unsuitable locality, they deteriorate through admixture with the conquered tribes better adapted than themselves to the local climatic conditions.

So far there has been little difficulty in establishing the opinion that the Suk-Nandi were prior to the Eloegop and the latter to the Karamojo, but in ascertaining the comparative antiquity of the Bantu and Negro tribes there is much less to go on. The Bantu people of North Kavirondo, however, state that they came from the south, while the people of Masawa (and Ketosh) are said to have migrated by way of Usoga. The fact that the former are mainly growers of grain and potatoes, while the Masawa people resemble the Wasoga and Waganda in largely cultivating bananas, would appear to support this tradition. The Nyifa or South Kavirondo, a tribe allied to the Negro Shuli, have no tradition as to their origin, and no knowledge of their cousins in the north. This fact might be taken to indicate that their presence in Kavirondo is prior to the Bantu. The Bantu Kavirondo have moreover secured the best part of the country, viz., that with two rainy seasons, while the Negro Kavirondo are confined to that portion with only one rainy season. This would all point to the Bantu Kavirondo being the more recent conquerors in the country. I am also led to believe that the Negro Nyifa in Kavirondo are anterior to the Masawa, and that the Elgumi are of still more recent origin.

The Masawa people have always spoken of the latter as encroachers, if not interlopers, and the Kikelelwa incident shows a spreading tribe.

If the Negro Kavirondo reached their present position from Shuli country by the East of the Nile and Victoria, it would appear probable that they were isolated by the intervening country between Mount Elgon and the Nile being occupied by the Bantu, who were themselves more recently sub-divided by an intrusive wedge of Elgumi, who separated Masawa from Usoga.

It is interesting to note that the Wasoga, Waganda and Wanyoro know the Elgumi and Lango as Bakedi, or the naked people, while the equally naked Shuli are called by a distinctive name Bagani, and the Kavirondo are called Bakavirondo. Now it is hardly likely that the epithet "naked people" would be applied to a neighbouring tribe unless those who applied the term had some clothing themselves, and there is reason to believe that the Bantu peoples in the Victoria region have gradually developed a taste for clothing and were originally as naked as any one else there. The Waganda admit to the Bakedi raiding across the Nile, and to many more or less unsuccessful counter raids, but I have never heard them claim to have dispossessed the Bakedi of territory. On the other hand the fact that the Shuli have a specific name Bagani applied to them, not unlike the Bantu word for aliens, would show that the Bantu people knew them as a distinct tribe, and would tend to indicate that the Bakedi appeared later in the field. More reliable data as to this point should, however, be procured in Uganda, and doubtless

Digitized by Google

will be forthcoming, if others will, like Mr. C. Hobley, take an interest in such investigations. But as matters stand, I would favour the theory that the Negros preceded the Bantu, and the Bantu preceded the Elgumi, Lango and Karamojo. Thus if we consider the more limited area in which there mingle representatives of the Negro, Bantu, Suk-Nandi, Masai and Karamojo, I am led to conclude that the Karamojo are the most recent arrivals. Before them was a wave of Bantu sweeping northwards and of Masai (Eloegop) sweeping southwards dispossessing and encroaching on the older inhabitants represented by the Negros and Suk-Nandi families. Whether the Bantu or Eloegop were earlier in the field is uncertain, but it is noteworthy that the Masai were known to the Waganda, who had a prophecy, strangely brought to pass by the British occupation of Uganda, that their country would be conquered through Masailand. The relative antiquity of the Negro tribes and the Suk-Nandi in their present geographical position is uncertain, and there is nothing on which to base an opinion, but on this point, too, further research may throw some light.

The whole question is a difficult one, but some of my conclusions appear to rest on a fairly solid foundation. In other cases, there may not be sufficient grounds to establish my theory, but as I have given my reasoning I trust that, even should the conclusions be afterwards proved inaccurate, in certain details, the work of my recent expedition has at all events thrown a little additional light on the most interesting problem of the ethnology of these regions.

Discussion.

Mr. Crooke remarked that for him this paper possessed special interest because in it a mass of materials was collected which would be of value in considering the Negrito element in the Indian population, which probably reached the Peninsula from the opposite Continent of Africa. Some of the customs described by Lt.-Col. Macdonald were from this point of view of special interest. Thus, the wearing by the bridegroom of his bride's petticoat for some time after marriage suggested similar customs of sex disguisement in India, of which various explanations might be formulated. The Masai custom of bush burial in the case of lower class people might be compared with similar Indian burial rites as described in a paper contributed by him to the present number of the Journal. The question of female circumcision among the Somalis was discussed by Major J. S. King, in Vol. II, *Journal Anthropological Society of Bombay.* So far it does not appear to have been traced in India. The blood covenant oath of the Karamojos is an interesting parallel to similar Arabian rites, as described by Dr. Robertson Smith. The Suks appear to have a well-developed custom of bride capture. The bride takes a child in her arms probably as a fertility charm.

Mr. Shrubsall pointed out the manner in which the lantern slides just exhibited illustrated the probable physical as opposed to the linguistic or social unity of the negro races of Africa, drawing attention to certain features of resemblance between the natives of the country to the north-east of the great lakes, and those depicted on the Benin castings now at the British Museum.

Digitized by Google

CENTRAL AFRICAN

COLLECTED BY LIEUT.-COLONEL J. R. L. MACDONALD

English.	*Swahili.*	*Usoga.*	*N. Kavirondo.*	*Masai.*	*Latuka.*	*Karamojo.*	
Salutation	jambo	godeo	merembe	sota	komo	māta	1
Water	maji	maji	amaji	ngare	ngārei	akipi	2
Food	chakula	emēre	usuma	nda	angiria	akimuj	3
Village	mji	charo	litara	ngang	tivangole	lore; nawi	4
Man	mtu	mundu	mundu	waltoñani	oiye	tonoñan	5
Woman	mke	mkazi	mukasi	ngatok	nangote	aberu	6
Child	mtoto	mwana	mwana	ngerei	aduri	koko	7
Day	siku	lunako	musiro	ngalon	ngalono	agulon	8
Road	njia	ngira	ngira	ngoitoi	nekoi	aroto	9
Cloth	nguo	lugue	lisēro	ananga	abongo	alao	10
Smoke	moshi	mwana	mos	mburua	aburo	apuru	11
Millet	mtama	bugemba	mabēle	olmusha[1]	nema	muma	12
Plantation	shamba	musire	makunda	elmgunda	elwaji	amana	13
Cattle	ng'ombe	ente	ngombe	ngeteng / ngishu	neteng	ate / aituk	14
Cow	ng'ombe jike	entemugongo	ngmukasi	ngeteleboni	angote	aituk aberu	15
Bull	ng'ombe ndume	enteenume	ngyeuno	olegeteng	atamut	aituk manek	16
Goat	mbuzi	mbusi	mbusi	agine / ndare	ēni	agine	17
Sheep	kondoo	entama	ligondi	enger	aker	mēthek	18
Donkey	punda	endogoi	isigiri	usigria	asigiria	vigria	19
Camel	ngam'a	—	ngamia	undames	akonikoni	ungala	20
Waterhole	—	ensulo	buina	laroto	agiri	lochore	21
River	mto	kivari	mualo	guaso	nalore	nangololo	22
Rain	mvua	amadi	ifula	ngai	agede	akiro	23
Trees	miti	moti	musara	ingata	abēre	akitoia	24
Grass	nyasi	esubi	munyasi	elgujita	nēbo	nginya	25
Earth	udongo	etaka	liroba	ngulukok	aboro	alup	26
Sleep	lala	kutenduka	kukoma	eraga	ejoto	apēre	27
Milk	maziwa	mata	mabere	kule	nali	akile	28
Spear	mkuke	eifuma	lifumo	aremet	nelu	agwara	29
Shield	ng'ao	ngabo	ngabo	eloñgo	akāli	aupāl	30
War	vita	eige	khweruna	njore	toriŭm	ngijore	31
Peace	amani	turiembwa	khwerunatawe	sutwa	obing	athilio	32
Meat	nyama	mamba	inama	nigiringo / ngiri	aringo	agiring	33
Game	—	visoro	isolo	muwesi	nalōre	eliañgi	34
Head	kichwa	mutwe	murue	lugunya	nāgho	akao	35
Hand	mkono	mkono	sinama	angaina	nāni	akāni	36
Foot	mguu	maguru	sirenje	angeju	neju	akeju	37
Brother	ndugu	mgandawange	mwanawefu	olalashe	ilung	lokatokan	38
Son	mtoto	mukewange	mushaniwefu	leion	unyigo	lapat	39
Dog	mbwa	mbwa	mbwa	lodia	ingok	ngoko	40
Lion	simba	mpologoma	yatunyi	olongatum	achiung	angatum	41
Snake	nyoka	musota	njoka	olosorei	amuno	emoni	42
Iron wire	sengenge	ungwiri	luuālo	sengenge	abilata	athoat	43
Brass wire	masango	rikomo	mukasa	masang	akwen	maitoet	44
Beads	ushanga	bunere	fiuma	saien	ouozo	chulo	45
Fire	moto	muriro	muriro	ngēmā	nēma	—	46
Father	baba	latawange	baba	papa	munya	baba	47
Where	wapi	gha	rohena	kore	nkēro	yeyai	48
How many	wangapi	wameka	balibanga	kajakulo	mkāja	nyai	49
What	nini	niki	shina	ainyo	nenyi	nyo	50

[1] Kikuyu word.

Digitized by Google

VOCABULARIES.

IN THE COURSE OF THE JUBA EXPEDITION.

	Suk.	*Nandi.*	*Wanderobo.*	*Save.*	*S. Kavirondo Wanyifa.*	*Borana Galla.*	*Ogaden Somali.*
1	chamkecha	chamke	sobei	sobei	mosi	nagaya kabla.	mot. manwadba.
2	pau	pēk	pēk	piko	pi	bishan	bīā.
3	ama	amĭt	amit	ngumia	kōni	sagălle	sōrta.
4	ngokatanyo	keita	kaita	kota	pācho	karang	hărăda.
5	akōgo	pīk	kiito	moran	thano	sifeda	ādĕgā.
6	korkoni	korke	korko	koroko	thako	intala	nākta.
7	mōnū	lakwe	lagwe	lekwa	nyathi	jōle	elmā.
8	akogo	petunok	āeng	sisita	ndal	guyan	āwa.
9	ore	orana	ōre	areti	wangio	tirbū	wadada.
10	alao	ange	ange	kirenget	lao	wāya	marada.
11	āros	iyet	aros	ingitim	iro	ār	kēka.
12	mosong	mosangik	mosong	musongek	bēl	machabo	harurk.
13	matei	pēk	pēk	imperet	puotho	ōru	bērta.
14	taiñge	tōgha	tōka	teta	viang	lawōni	lōta.
15	sakāt	iwoge	sakāt	teta koroko	viangmathako	kōrămra	ssdidik.
16	yeāi	aito	ēto	tēta moran	ruath	kibĭch	dibika.
17	ngoror	nioko	arte	warēk	dieli	khrēē	arega.
18	kēsh	kicherek	kēchē	mangit	rombo	khōlā	edā.
19	sigria	sigire	sigria	sigria	kanyema	ărē	tomēra.
20	tāmās	tamesi	tombes	tembes	aluo	gāl	gel.
21	pau	kererkie	luge	pikopañoi	awachi	kōno	lechan.
22	ēn	endo	ēn	eitom	āora	endata	durdurka.
23	rōp	torōt	rōpta	ropta	koth	bŏkē	rōp.
24	kuendo	ketit	ketit	katet	yath	mūku	huiyet.
25	susōm	susuandi	susuon	suswek	lum	būyo	āūsk.
26	numoi	numunyēk	nongum	kitopañoi	lō	biye	āro.
27	rūē	kaguruiyo	mauru	ruondo	anēndo	rāfl	sāhao.
28	keko	kiyeko	keiko	kiko	chaki	ānăn	āna.
29	ngōt	añgotet	ngotit	akwar	tong	warān	warākă.
30	longē	long	longe	loñget	kuot	wantē	kāshān.
31	lūk	lūke	setluge	parare	lueni	nyābiadufe	tĕrerta.
32	mīs	tiliye	tilia	kutai	merembe	nagējira	nabăt.
33	pēng	penda	pănyek	pendo	ringo	fōn	hĭlīp.
34	arawa	arawe	arāwe	makao	lē	—	—
35	mēt	metit	metit	metit	wich	matā	madaha.
36	ēyi	ēyu	ēū	—	luedo	hărkă	kānta.
37	kēl	keldo	kēlto	kirenget	tielo	lūkū	lugha.
38	wurtanyo	keturche	ēlte	tiliangani	wadwa	ōbōles	wālala.
39	nyēta	nyētik	lakwe	kwero	omēra	mūchā	arorta.
40	kugwI	sēsē	chugui	ngoniti	guōk	săve	ēg.
41	kawai	abiye	kiesing	—	siburi	nēk	libēha.
42	moroi	ērēn	ērēn	njoki	tuōl	bāfu	măsk.
43	titir	tobokwe	tobokwe	sengenge	malo	—	—
44	tai	tāe	tai	sengenge amulum	mola	—	mārta.
45	sonei	soneiet	sonoi	sonaia	utiti	—	kosha.
46	māt	māstinock	māt	—	māch	ibitā	tābka.
47	paponyan	paipai	pabwa	—	urwa	abaki	abahi.
48	ngō	ngiro	ano	miono	akānye	kulote	āwē.
49	adeng	ata	ata	ata	adi	nagăm	wamisa.
50	kenya	kelene	ne	ne	ango	wansūm	wamhei.

Digitized by Google

English.	*Swahili.*	*Usoga.*	*N. Kavirondo.*	*Masai.*	*Latuka.*	*Karamojo.*	
To-day	leo	lero	sitere	tata	aghāna	takāi	51
Yesterday	jana	ido	shavere	ngole	ngolonole	beāli	52
In front	mbele	mberi	mbiri	lugunya	agosiere	kingaren	53
Behind	nyuma	enuma	munuma	kurum	negalo	kao	54
To-morrow	kesho	enjo	machuri	teiseri	moite	moi	55
No	hakuna	ira	shishirio	mēti	abeng	mām	56
All	wote	vuona	vos	poege	ingiye	dādang	57
After	baada	linda	basiri	ngor	idigido	togwa	58
Now	sasa	begano	bulano	tata	teniaghani	tete	59
Here	hapa	ghano	ano	ene	teni	nege	60
There	huko	eyo	eria	idye	dia	ama	61
Near	karibu	gambi	naharubi	tana	egutu	api	62
Far	mbali	aghala	nehale	alagwa	alamaja	aluana	63
Who	nani	nani	wina	engai	ngaiye	ngai	64
Whose	ya nani	chani	shawina	kenengai	anangai	kangai	65
My	yangu	yange	yanje	enai	ununa	kang	66
Your	yako	iyo	iyiyo	line	onungana	koni	67
His	yake	chono	nasisis	lanye	onalia	kalu	68
Bring	leta	leta	lera	eao	eau	yao	69
Come	njoo	ēda	inza	wao	uwang	bwa	70
Want	taka	nenda	ninyere	aiyao	yatakitaniye	achamet	71
Go	nenda	genda	kenda	shomo[1]	ilo	toloto	72
Will reach	tafika	tunatoka	kuola	tabeiye	abanya	abun	73
Wait	ngoja	rinda	rinda	tanyo	ētīlanani	dareo	74
Tell	ambia	nkobera	songiri	tolimu	ekiana	tolomokin	75
He is coming	anakuja	aida	aredza	alotu	atuade	aloto	76
He is going	anakwenda	agenzo	akendire	alle	ilo	alothi	77
Call	mwite	mwete	mulange	mboto	nitāk	tanyara	78
Do you know	wajua	indidi	manyire	ayolo	mejakene	iyen	79
Finished	mekwisha	bamaze	bauēre	edibe	atukoi	armure	80
Take away	chukua	situra	kinga	ēwa	ebiam	toting	81
Speak	sema	yogēra	simga	eroro	ekiana	tolomokin	82
Drink	kunywa	kunya	ama	aitangik	amata	amathe	83
Eat	kula	kuria	dia	enāsa	ingiye	anāmi	84
To fight	ku pigana	burwana	kukweana	matarata	toriamu	iyare	85
Make	fanya	kola	khola	enderoni	egani	—	86
Dear	ghali	kikalanguf	kitinyere	agu	omutari	agugum	87
Cheap	rahisi	vioru	bulai	kelelak	niñaña	agilejok	88
Fast	upesi	mangumangu	chia	tasiugu	kokwak	tomatūm	89
Slow	polepole	mpola	kala	aketiaketi	mimo	aditadit	90
Unripe	bichi	kibisi	kivisi	keshala	obuji	ajonok	91
Good	mzuri	murungi	mulai	sederi	yoghoma	ajokan	92
Bad	mbaya	mubi	momubi	torono	orogho	orono	93
Red	mwekundu	mweru	mulaf	nanyuki	odoiret	narengan	94
White	mweupi	lueru	ndaf	neibor	olobong	nakwañan	95
Black	mweusi	mwidugavu	nimumari	narok	lamole	—	96
Blue	kama maji ya bahari.	luvuvu	nimumari	naivasha	losura	nakirionon	97
Brave	hodari	mukalangufa	muting	chogul	ogol	—	98
One	moja	mulola	mulala	nabo	aboite	apei	99
Two	mbili	babili	mabili	are	arega	nyare	100
Three	tatu	basatu	mataro	uui	kunugoe	nyaini	101
Four	nne	bana	bane	oñon	ongwan	nyomon	102
Five	tano	batano	barano	miet	miet	akan	103
Six	sita	mkaga	basaba	ile	ile	akankapei	104
Seven	saba	musamva	baranonababili	nabishyana	ghatarāk	akankare	105
Eight	nane	munana	banana	ishiete	kotoguni	akankaune	106
Nine	tissa	muenda	barananabane	naūdo	kotongon	akankaomon	107
Ten	kumi	ikumi	kekume	tomon	tomon	tomon	108

[1] verb alle.

Digitized by Google

VOCABULARIES—*continued.*

	Suk.	*Nandi.*	*Wanderobo.*	*Save.*	*S. Kavirondo Wanyifa.*	*Borana Galla.*	*Ogaden Somali.*
51	iye	nauoni	ngolēl	laut	tinende	bōru	mǎngta.
52	oino ...	amut	omut	amtum	nyoro	bōrtirām ?	shali.
53	tai	tai	huimet	—	atelo	dǎbǎri	hōrei.
54	let	letut	lēt	siskina ...	kiēn	jēbe	tibonoko.
55	oinopet	karon	ārōl....	tuni	king	bortirom ?	biri.
56	maminye	matinye	momi	purio	onge	imbeku	māakǎn.
57	tukul	tokol	togul	tukul	lundo	wasuntutu	kulugei.
58	mulēgit	toma ...	marobon	tombo	podi	enduflne	wali.
59	ive	raune	ongolen	rāūt	kauon....	wānsum	ata.
60	iyēte	yū	īyu	ule	karkai	ārma	mēchǎn.
61	yuno	olīm	iyun	inyi	kucha	kulothi	hāgo.
62	lēgit	legit	lēgit	—	machegine	tai	sedo.
63	lōwet	lo	lō ?	—	mabori	bāyā	hagafukta.
64	ilat ?	tōrot	ichingo	fīgo	ngawa.... ...	wansūn	waiyo.
65	onǧonyete	pongoki	pongo	pango....	maruga ?	kaunuti	āyale.
66	nenyān	nanye	nenyune	nañwane ...	māra	kǎnkiya	anale.
67	ñañgu . .	nangun	nangun ...	nyanuni ...	māri	kanketi	sagale.
68	pauēri	mananyo	roni	nyangun	marejalicha	kahebelutie	nikasale.
69	ubune	konu	obun ...	suturi	kēl	kotim	kēn.
70	nyōna	abwa	ño	kujoli....	abī	koi	kāle.
71	amachan	amache	amache	kucham	adwaro	malefet	wandoni.
72	kepecha	ūi	kēbe ...	kepichike	wathio ...	ējem	sāu.
73	nyona	keitete	kaitete	kuo	atundu	bǒrǒ	wāgāri.
74	kanya ...	kanyet	kanya	sis	rit	ēch	juk.
75	mauūne	maun ...	mōkin	kungala ...	wachima	bobifeda	ūshek.
76	angun	aiño	manyo	kajong	abēru	adufĭ	wāēmon.
77	kēpē	kui	kāoē	kuo	othio	nidiēmi	nāwǎge.
78	kūrē ...	kur....	kur....	nalalakujo	aluango	wām	ūyǎd.
79	angitŏm ...	oīgin	onget ...	kalim	engeyo ...	nimbēka	wāakǎn.
80	akorok	karok	kakorok	kabek....	urumo	injirtu	domabi.
81	kēnya	ūp	up	nām	ting	fūdǎdu	kāt.
82	anānā	ngatān	moun ...	ngolal.... ...	wācho	dubadu	adāl.
83	aūchongim....	aupiēk	ūpi	piēk	amatho	bishanduki	ap.
84	ama	ongēm	ām	wām	achamo ...	nyādū	sōrtōam.
85	epēsien ...	ngebarke	keporien	kubwar	wakedo	walola	wadirhai.
86	yeiya	sāgban	ēai	—	tem	kāpi	same.
87	āū	ōi	āoi	buriokwalish....	matek.... ...	—	ibadagiahe.
88	karan	kolokol	namnyum	kwal	maber....	wāndiko	wachabanyahe.
89	mongun	mongun ...	amai ...	kabchikucho	pispio....	hūrisi	nāksō.
90	nyomōt	mutia	nyomutio	mūtmūt	mosmos	lānijem	ayāsō.
91	nyatel ...	tokonyale	nyalel	tombo kimar	manum	dēdi ...	akoienye.
92	karām	kararan	kararan	—	maber.... ...	tānsā	watalmonte.
93	ēya	sorīn	ēa	—	marach	hāmā	walhunyei.
94	perir	periek	perir	—	masulwali	dīma	wasie.
95	lel	lēlek ...	lēl	—	marachar	āti	wāādu.
96	toi	tuek ...	toi	—	lateng....	kūrach	wamedoiye.
97	weiwei	arareita	sochige ...	—	lateng....	gānālĕ	ākhtār.
98	āūl	koliōl	āoi	—	matek....	jǎbā	hōgbuleiye.
99	akong	agenge	akenge	agenge	acheli....	tāka ...	met.
100	adeng	aieng	aeng	aien	ario	lam....	lǎba.
101	somok	somok	samok	samok	adek	sādi	sadhe.
102	naoñgon	añwan	oñwan	anwan	ongweni	afur	āfǎr.
103	ekān	mūt....	mūt	muti	abich	shān	shǎn.
104	akankapei	ilo	lo	mutwakenge ...	auchiel	jā	lēh.
105	isāp	tisǎp	tisup	mutwaien	aboro	torba	todǎwā.
106	tine	sisit....	sisēk	mutwasomok ..	abereo	sadēt	sidit.
107	sokol	sokol ...	soghor	mutwan	luedoakachel....	sǎgūl	sāgāl.
108	nǎman ..	tomon ...	āmun	tomon	apar	kūdǎn	tomon.

Digitized by Google

NOTES ON THE MASAI SECTION OF LIEUT.-COLONEL MACDONALD'S VOCABULARY.

By Mrs. S. L. Hinde.

English.	*Masai.*		*English.*	*Masai.*	
	Mrs. H.	Col. M.		Mrs. H.	Col. M.
Salutation	There are various forms of salutation in Masai. The salutation "soboi" is used between men when *not* shaking hands; the reply to this is "eber."	*soba.*	Ram	*orrmerēgi* ...	—
			Ewe	*ngērr*....	—
			Donkey (masculine).	*olāmwe*	—
			„ (feminine)	*ossigirria*	*usigria.*
			Camel	*ndamess* or *ngaiurr.*	*undames.*
			River	*ngwasso* or *orrgēju.*	*guaso.*
Man	*eltungani*	*waltoñani.*	God .... }	*ingai*	*ngai.*
Woman	*engitok* (form of address).	*ngatok.*	Rain .... }		
„ (female)	*ngoirraion* (this word is never used as a form of address unless insultingly).	—	Trees	*elgieg*.... }	*ingata.*
			„ (singular)....	*oldani* }	
			Grass	*engojeta*	*elgujita.*
			Earth (ground)....	*ngop*	*ngulukok.*
			Sleep (imperative plural).	*erraga*	*eraga.*
Child	*ngerai*	*ngerei.*	Milk	*ŭgulē*	*kule.*
Day .... }	*ngolong*	*ngalon.*	Spear	*eremet*	*aremet.*
Sun .... }			War	*endiore*	*njore.*
Road	*ngōitri*	*ngoitoi.*	Meat .... {	*engerri*	*ngiri.*
Cloth	*engelā*	—		*ingēringu*	*nigiringo.*
„ (warrior's war cloth.)	*enanga*	*ananga.*	Game (alive)	*ngwess*	*muwesi.*
			Head	*elogonya*	*lugunya.*
Smoke	*embŭrruer*	*mburua.*	Hand	*ndap*	—
Plantation {	*ngurruma* .... }	*e'mgunda.*	Arm (the whole)	*ngaina*	*angaina.*
	(*emogonda* is the Kikuyu form). }		Foot	*ngaiju*	*angeju.*
			Brother	*ollalashe*	*olalashe.*
A head of cattle....	*ngiting*	*ngeteng.*	Boy	*orlaiyon*	—
Cattle (plural)	*ngishu*	*ngishu.*	Son	there is no word for son; child is always used.	*leion.*
Cow	*ngitelibong*	*ngeteleboni.*			
Bull	*orlōingoni*	*olegeteng.*			
A goat	*ndari*	—			
Goat (he-)	*orlōrro*	*agine.*			
„ (she-) ...	*ingine*	*ndare.*	Dog	*orldia*	*lodia.*
A sheep	*ngera*	*enger.*	Lion	*ŏlonātring*	*olongatum.*

N.B.—In the Masai language there are different words for the males and females of domestic animals in distinction to those of wild animals, which have only one gender.

Digitized by Google

English.	Masai.		English.	Masai.	
	Mrs. H.	Col. M.		Mrs. H.	Col. M.
Snake	*oloserai*	*olosorei.*	He is going	*kello nenye*	*alle.*
Iron wire	*essegengi*	*sengenge.*	Call (imp. sing.)	*embōōtu*	*mboto.*
Beads	*essain*	*saien.*	Do you know	*aiulu iye*	*ayolo.*
Fire	*ngima*	*ngēmā.*	Finished	*endeba*	*edibe.*
Father	*baba*	*papa.*	Finish (imp. sing.)	*edebi*	—
To-day	*taāda*	*tata.*	Take away (imp. sing.)	*endau* or *rodomo.*	*ēwa.*
Yesterday	*ngole*	*ngole.*			
In front	*nologonya*	*lugunya.*	Speak (imp. sing.)	*atoju*	*ɾoro.*
Behind (last)	*korom*	*kurum.*	Drink („ „)	*toōgo* or *toōko*	*aitangik.*
To-morrow	*taaiisere*	*teiseri.*	Eat („ „)	*enossa*	*enāsa.*
No	*menenye*	—	To fight	*naarr* or *ngigerishu.*	*matarata.*
Not / None	*meti*	*mēti.*	Make (imp. sing.)	*endobera*	*enderoni.*
All	*bōōgi*	*poege.*	Dear	*ergol*	*agu.*
After	*tengai*	*ngor.*	Fast	*tassiogi*	*tasiugu.*
Now	*taāda*	*tata.*	Slow	*aketi*	*aketiaketi.*
Here	*enne*	*ene.*	Good	*sidai*	*sederi.*
There	*iddie*	*idye.*	Red	*enyuki*	*nanyuki.*
Near	*eteana*	*tana.*	White	*eboīr*	*neibor.*
Far	*elagua*	*alagwa.*	Black	*erok*	*narok.*
Who	*enaiana*	*engai.*	Blue	*engarramboi* or *ollonyori.*	
My	*elai* or *enai*	*enai.*			
Your	*enino*	*line.*		*enaibasha* (or *naivasha* as we call it), means "the big water" or "sea."	*naivasha.*
His	*enenye*	*lanye.*			
Bring (imperative singular).	*iaw*	*eao.*			
Come (imp. sing.)	*woo* or *ōō*	*wao.*			
Want (I want)	*aiu*	*aiyao.*			
Reach (imp. sing.)	*tabaigya*	*tabeiye* (fut. indic.)	Three	*ūni*	*uui.*
			Four	*ungwun*	*oñon.*
Wait („ „)	*ndaishu*	*tanyo.*	Five	*miet*	*miet.*
Tell („ „)	*tiagi*	—	Six	*elle*	*ile.*
Say („ „)	*tolimu*	*tolimu.*	Seven	*nabishana*	*nabishyana.*
He is coming	*elotu nenye*	*alotu.*	Eight	*issiet*	*ishiete.*

Digitized by Google

NOTES ON THE SWAHILI SECTION OF LIEUT.-COLONEL MACDONALD'S VOCABULARY.

By Miss M. E. Woodward.

Swahili and all Bantu languages divide their nouns into a number of classes, which are distinguished by their first syllable, and bring their adjectives, pronouns and verbs into relation with substantives by the use of corresponding changes in their first syllables.

English.	*Swahili.*		*English.*	*Swahili.*	
	Miss W.	Col. M.		Miss W.	Col. M.
Man (person)	*mtu*	*mtu.*	Reach, to	*kufika*	—
Male, n.	*mwanaume*	—	He will reach	*atafika*	*tafika.*
Woman, female, n.....	*mwanamke*	—	Call, to	*kuita* ... }	*mwite.*
„ „ adj.	*-ke*	—	Call him	*mwite* .... }	
„ „ (of animals).	*jike*	—	Finish, to	*kuisha* .... }	*mekwisha* (finished).
			He has finished	*amekwisha* }	
Wife	*mke*	*mke.*	Drink, to	*kunywa*	*kunywa.*
Water hole....	*tundu la maji*	—	Make (imper.)	*fanya*	*fanya.*
Game	*mawindo*	—	Unripe	*-bichi*	*bichi.*
Son	*mtoto mume*	*mtoto.*	Unripe fruit	*matunda mabichi*	—
„ (male child)	*mwana*	—	Good	*-ema*	—
How many?	*-ngapi?*....	*wangapi.*	„ (fine)....	*-zuri*	*mzuri.*
How many people?	*watu wangapi?*	—	A good person	*mtu mwema*	—
All	*-ote*	*wote.*	A beautiful person	*mtu mzuri*	—
All people	*watu wote*	—	Bad	*-baya*	*mbaya.*
Whose	*-a nani?*	*ya nani.*	A bad person	*mtu mbaya*	—
Whose house?	*nyumba ya nani?*	—	Red	*-ekundu*....	*mwekundu.*
My	*-angu*	*yangu.*	A red house	*nyumba nyekundu*	—
My house	*nyumba yangu*	—	White	*-eupe*	*mweupi.*
Your	*-ako*	*yako.*	A white child	*mtoto mweupe*	—
Your trees	*miti yako*	—	Black	*-eusi*	*mweusi.*
His	*-ake*	*yake.*	Black people	*watu weusi*	—
His house	*nyumba yake*	—	Blue....	*kama maji ya bahari* (like sea-water).	*kama maji ya bahari.*
Come (imper.)	*njoo*	*njoo.*			
Come, to	*kuja*	—			

Digitized by Google

ORDINARY MEETING.

NOVEMBER 21ST, 1899.

Professor E. B. TYLOR, D.C.L., LL.D., F.R.S., *in the Chair*.

The Minutes of the last Meeting were read and signed.

The election of Mr. DAVID MACIVER as a Fellow of the Institute was announced.

The PRESIDENT introduced Dr. E. WESTERMARCK of Finland, who proceeded to read his paper:—"On the nature of the Arab Ǧinn, illustrated by the present beliefs of the people of Morocco."

Discussion was carried on by Mr. WILLIAM CROOKE, Mr. G. L. GOMME, Mr. BOUVERIE PUSEY, and Mr. O. H. HOWARTH. After the exhibition of some lantern slides of Morocco, Professor TYLOR closed the proceedings with a vote of thanks to Dr. E. WESTERMARCK for a most useful and interesting paper.

The CHAIRMAN mentioned that the Third Edition of *Anthropological Notes and Queries* had just been issued.

Digitized by Google

THE NATURE OF THE ARAB *ĞINN*, ILLUSTRATED BY THE PRESENT BELIEFS OF THE PEOPLE OF MOROCCO.

By Edward Westermarck, Ph.D., Lecturer on Sociology at the University of Finland, Helsingfors.

The Arab *ǧinn* hold a prominent place in the young Science of Religion in connection with a theory now much in vogue. They have been represented as survivals of ancient Semitic religion,—survivals which indicate that the Semites passed through a stage of totemism before they arrived at their conceptions of transcendental gods. This hypothesis, which has gained much adherence, seems to me to require reconsideration. Before proceeding to discuss the origin of the belief in *ǧinn*, however, I shall give a detailed account of the belief itself, and this account I shall base upon the present superstitions of the people of Morocco among whom I have spent nearly a year, and to whom I shall soon return, with a view of examining the traces of Pre-Muhammedan belief still existing among them.[1]

The belief in *ǧnûn*[2] forms a very important part of the actual creed of the Muhammedan population of Morocco, Arab and Berber alike. It pervades all classes, and though some of the more enlightened Moors are inclined to represent it as a superstition of the ignorant, I doubt whether there is anyone who does not practically adhere to it. The common people speak of the *ǧnûn* as unreservedly as of men and women, and do not hesitate to claim a personal acquaintance with them. In consequence, it is comparatively easy to acquire an accurate knowledge of their belief.

The *ǧnûn* form a special race of beings, created before Adam. In various respects, however, they are like men. They eat and drink, they propagate their species, they are subject to death, and some of them, the Muhammedan *ǧnûn*, go to heaven after death. They even form sexual connections with men. In the village Ební Ḥlu, in the Anǧera district, I was told that a villager once married a *ǧinnîa*, or female *ǧinn*. She gave birth to two sons, one of whom became a *ṭâleb*, or scribe, and is still alive. In a village near Tetuan, a similar case occurred. A man married a *ǧinnîa*, and lived with her in a mill. When they were alone she had the appearance of a woman, but, as soon as anybody else entered the mill, she

[1] I have obtained valuable assistance from Sherîf 'Abd s-Salâm l-Baḳâli, a resident of Tangier, who has accompanied me on all my journeys in Morocco.

[2] *Ǧnûn* (جنون) is the Moorish plural of *ǧinn*, or *ǧenn* (جن).

Digitized by Google

assumed the shape of a frog. The people knew of her from her doings. One morning her husband was found in his bed with his legs tied up. He had quarrelled with his wife, and she had taken her revenge in this way, whilst he was asleep. As a rule, however, she was kind to him. He had always money, he was well dressed, and possessed many guns,—which could only be accounted for by his having a *ǧinnîa* for his wife. This was, after all, an unusually happy instance, for connections with *ǧnûn* generally result in madness.

Ǧnûn may be met with anywhere, but certain places are especially haunted, *meskûnin* (مسكونين). At Tangier they have their favourite abode on the sea-shore; at Fez in an old fort; at Marrakesh their sultans assemble in the big well called *l-bîr l-ḥaddâd*, at Tetuan in the spring *l-ḳnâ l-kbîr*. They inhabit rivers, woods, the sea, ruins, houses, and particularly springs, and drains, and caves, and other underground places. Their native country is below the surface of the earth. There they have villages and towns, and live in tribes or nations, each of which has its sultan. But they are not tied down to any particular spot, and sometimes they travel great distances. They are constantly coming forth to the upper world, more especially when it is dark. Hence, a Moor's fear of the *ǧnûn* practically commences with the twilight. There are streets in which he will not venture to walk at night, and houses which are uninhabited because nobody dares to sleep in them. In Marrakesh I heard of a man who moved out from his house regularly every night. Most Moors are afraid of sleeping alone in a room, especially if the door be left open, and to sleep in a stairway is regarded as particularly dangerous. It would require still greater courage to pay a nocturnal visit to a place where cattle are slaughtered, as the *ǧnûn* have a special predilection for places where there is blood. As soon as it gets dark, too, a Moor will carefully abstain from pouring out hot water on the ground.

The *ǧnûn* have no fixed forms, but may assume almost any shape they like. They appear now as men, and now as goats, cats, dogs, donkeys, tortoises, snakes, or other animals,—now as monsters with the body of a man and the legs of a donkey, now in other shapes,—sometimes, for instance, with seven heads. A man told me that once in his youth he met a little baby which suddenly changed into a giant. The monster, which was, of course, a *ǧinn*, gave him a blow which made him lame for three years. One evening my servant, l-'Arbi, saw a *ǧinn* in the offices attached to a mosque. The *ǧinn* was white, had long hair, and was scratching its head. L-'Arbi, who was frightened, called the night-watch, and the *ǧinn* then ran away in the shape of a red dog. L-'Arbi asserted that he was out of his mind for a month afterwards, and then a magician cured him by writing him a charm. In my house at Marrakesh my sleep was disturbed by the noise of a cat. When I told my servants to drive the creature away, they answered me that no Moor would ever dare to hit a cat in the dark, since it is very doubtful what sort of being it really is. It would be easy to fill a volume with *ǧinn* stories from Morocco.

A *ǧinn* often indicates its presence by producing something strange or

Digitized by Google

unexpected. The columns of sand or dust which often travel across the plains of Morocco are caused by *ǧnûn*. In some places such a miniature cyclone is called *l-'ammarîa del-ǧnûn* (العمري دالجنون), "the bridal box of the *ǧnûn*," in other places, *'airūḏ* (عيروذ), this being the name of an *'âfrit(s)*, or strong *ǧinn*. *Ignis fatuus* is a fire kindled by *ǧnûn*. A falling star is a dart thrown by the angels at a *ǧinn* who tries to get up to heaven. The big stones in the walls of Mequinez were carried there by *ǧnûn*, being too heavy for any man to lift. Dear times are caused by many *ǧnûn* being in the town and eating up the food. When a man stumbles in the dark, some people say that he trod on a *ǧinn*. The most usual way in which the *ǧnûn* make their presence felt is by causing sudden disturbances of the health, such as convulsions, epileptic and paralytic fits, rheumatic and neuralgic pains, fits of madness, and certain epidemics which are rare and violent, like the cholera. In these cases the *ǧinn* works its will by striking its victim, and by entering his body, or sometimes, in cases of epidemics, by shooting an arrow at him. When the cholera was in Morocco some years ago, the people believed that an army of *ǧnûn* had overrun the country. Where the epidemic was very violent, the *ǧnûn* were supposed to have pitched their tents inside the town wall, whereas the occurrence of a few cases only indicated that they were camping outside the town, and now and then making a hit with their poisoned arrows. I was told at Tetuan that those who died were followed to the grave by an unusually great number of people, and that for the following reason:—when a dead man was buried, the enemy at once looked out for another victim, and let his arrow fly among the crowd at the grave, and, therefore, the bigger the crowd, the less the individual risk. Jackson, in his account of the plague which raged in Morocco a century ago, also states that those who were attacked by the plague were supposed to have been shot by "genii" armed with arrows.[1] It should, however, be noticed that by no means all kinds of illnesses are attributed to the tricks of the *ǧnûn*, but only sudden and unusual ones. Fever, typhoid, small-pox, etc., are sent by God; and there are many people who assert that all diseases are punishments inflicted upon mankind by God, and that the *ǧnûn*, when attacking men, only do so by His command.

A man seized with sudden fear is peculiarly liable to the attacks of the *ǧnûn*. If he then fall a victim to them he is said to have *shâ'ṭa* (شعط). If, for instance, anyone falls ill after being frightened by a cat or a dog in a dark place, the animal is held to have been a *ǧinn*, and the man's illness is explained by saying that the *ǧinn* entered into him and gave him *shâ'ṭa*. Again, suppose a boy, whilst eating with his father, misbehaves in some way. If, when his father punishes him, he begins to weep, the *ǧnûn*, which are always near people who are eating, easily seize him and give him *shâ'ṭa*. It is bad to awaken a man out of sleep too suddenly. He should be aroused slowly, as otherwise he may be frightened and get *shâ'ṭa*. It is also considered bad for a man to look at himself

[1] Jackson, *An Account of the Empire of Morocco* (1814), pp. 176 *sq.* note.

Digitized by Google

in a looking-glass in the evening, and some people say that, if he does so, a *ǧinn* goes into his eyes and makes them sore. There is held to be something mysterious about the reflected image in the glass.

There are good *ǧnûn* and bad *ǧnûn*, but the latter hold a much more prominent place in the popular creed. They are *shiâṭan* (شياطن) devils, and the worst of them is called Iblis, *the* devil, who is also termed *shiṭan*. The plural *ibâlis* (ايبلس), however, is sometimes used for bad *ǧnûn* generally. Iblis has seven hairs on his chin, and a bad scar over one of his eyes. He it is who incites men to fight. If a man is pugnacious, and his friends say, *allâ jinnâ'l sh-shiṭan* (الله ينعل الشيطان), *i.e.*, "May God curse the devil," Iblis is frightened away, and the man at once becomes quiet. Iblis tempts brothers to have illicit intercourse with their sisters. When a man is about to give alms to the poor, Iblis restrains him. Iblis finds pleasure in seeing men do what is hateful to God. If anybody pollutes a mosque, or uses unclean liquid for his ablutions, or treats the Koran disrespectfully, he may be sure of gaining Iblis's favour. Iblis rejoices when a man dies unmarried, and weeps when a young man takes to himself a wife. He gives people bad dreams, and when a man yawns, he dirties his mouth.

The bad *ǧnûn* being always ready to attack human beings, various means are used for keeping them at a distance. The *ǧnûn* are afraid of salt and steel. Some Moors put salt in their pillows, or take salt in their hands when they go out at night, and if a man be frightened, it is advisable for him to eat salt. There are also people who put a knife near their pillow before they go to bed. A boy who was left alone in a house was attacked by *ǧnûn*. They shut the door and blew out the light, but by rubbing a knife against the wall the boy succeeded in driving them out. The best, and, from a religious point of view, the correct preventive against the attacks of the *ǧnûn* is the recital of passages of the Koran. A man who passes haunted places in the dark will feel safer if he repeat the *âjatu l-kursî*. When a man pours hot water on the ground, he generally says, *bism illâ*, "In the name of God." The same words are uttered before every meal: he who neglects to say them will have *ǧnûn* as table-companions. During the holy month of Ramaḍan the *ǧnûn* are confined in prison until the twenty-seventh night of that month. They are especially afraid of everything connected with the religion of the Prophet, and, hence, they have a great respect for his descendants, the *shurfa*.

When the Moors build a house or dig a well, they always take precautions against *ǧnûn*. The Anǧera people put some salt and wheat and an egg in the ground, and kill a goat on the threshold of the new house; otherwise, they say, the children of the house would be stillborn or would soon die. In various parts of Morocco some animal—a goat, or a sheep, or a cock, sometimes a bullock—is killed both when the foundation of a house is laid, and when the house is ready, or nearly ready for occupation. In the latter case the sacrifice takes place on the threshold, and afterwards the slaughtered animal is eaten by the proprietor, his family, and invited guests. When a well is dug, a goat or a sheep is also killed, especially if

Digitized by Google

there be no signs of water. In Anǧera I saw a well of which the lining brickwork was broken, and my native friends told me that it had cracked immediately after it had been built up, because no animal had been sacrificed to "the owners of the place." Every place has its *ǧnûn*, its owners, *mwâlin l-mkân* (مولين المكان). When travelling, the Moor asks for the protection of the spirits and the saints of the place in which he is going to pitch his tent. Every house, too, has its *ǧinn*, good or bad. If the *ǧinn* be good, the inhabitants will prosper; if bad, they will have misfortunes or soon die. When a Moor strikes a light in a dark room, he says, *msa-l-ẖâir 'alikum jâ mwâlin l-mkân* (مسلخير عليكم يا مولين المكان), "Good evening to you, oh ye owners of the place." The spirit of the house is frightened by dogs, by photographs, and by whistling.

When a *ǧinn* has got hold of a man, various means are employed for driving him out. At Laraiche there is a spring near Sîdi Boḳnâdel's *ḥamma* (الحمم), or offering-place, into which people possessed with *ǧnûn* throw loaves of saltless bread. Some tortoises will probably appear and eat the bread, and the man who has thrown it in, after sprinkling his body with water from the spring, believes that he has got rid of his complaint. Someone who had tried the cure told me that he threw into the water two loaves, one cold and the other hot, because, as he said, his body was shivering with cold and burning with heat at the same time. I was informed at Marrakesh that a similar cure is practised near Glawi, in the Great Atlas. The patient throws a saltless loaf into the spring attached to Lalla Takerkut's sainthouse. Then he takes a bath in the spring, and the tortoises which eat the bread will rid him of the *ǧnûn* by biting him. Related to this means of expelling *ǧnûn* is the so-called *ḍiâfa* (الضياف), which is subject to many variations in detail. The following account shows one of the ways in which it is practised. A dish of fish or meat is prepared, without salt. Part of it, together with some saltless bread, is eaten by the patient, and another part is put on a plate and taken by a black woman to some place haunted by *ǧnûn*. She also takes with her, in her basket, a piece of a looking-glass, a miniature flag in seven colours, some sort of clumsy doll, and a copper coin, together with some burning charcoal and incense. Besides the patient, the other members of his family may also partake of the dish, but, if they partake, they ought to salt what they eat. The woman who carries the basket must not speak to anybody she happens to meet, for otherwise the *ǧnûn* may go into her. Generally some hungry dogs eat the food after the black woman has gone away. In Ební Ḥlu, again, the practice is to kill a cock, boil it, and to put its boiled flesh into a dish of *suksu*. The dish, when thus filled, is surmounted by the feathers of the dead cock, care being taken that none fall off. After the patient has tasted the dish, an old woman carries the rest to some spring which is haunted by *ǧnûn*, and on the following morning, if the food has disappeared, the feathers are brought back to the house, and burnt, and the patient inhales the smoke. If, on the other hand, the food is left untouched, there is no hope of his recovery. I have also heard that, in some places, a cock is killed

Digitized by Google

over the sick man's head, without the orthodox ritual of turning it towards the East, and without any invocation of God. The cock, which should have the colour of the *ǧinn* that is troubling the patient, is then carried to a place haunted by *ǧnûn*. But this is called *l-'âr* (العار), not *ḍ-ḍiâfa*, which always involves the idea of a meal with *ǧnûn* as guests. Two or three different ideas seem to underlie these practices. Not only have we the idea of a sacrifice, but we have, also, the idea of enticing the *ǧinn* to leave the body of the patient, and, yet further, the idea of transferring the disease into some other body. The killing of the cock is a sacrifice, and the *ḍiâfa*-meal has the character of a sacrificial meal. At the same time, there seems to be some hope that the *ǧnûn*, being very greedy, will not be able to resist the temptation of the saltless delicacy. In the haunted place where the *ḍiâfa*-food is deposited, they assume the shapes of the tortoises or dogs, which are seen to eat the food brought there in the patient's behalf. The idea of transference, again, is indicated by the biting of the patient by the tortoises, by the doll which is put in the basket together with the food, by the fact that the woman who carries the *ḍiâfa*-food must not open her mouth, and by the belief, expressly held by some people, that the dogs which eat the *ḍiâfa*-food are not *ǧnûn*, but real dogs, and that, after eating, they will be possessed by the *ǧnûn* that troubled the patient.

The *ǧnûn* are divided into tribes, and each tribe has its special day for attacking human beings, as, also, its special colour. By ascertaining the day when a *ǧinn* has entered a man, the magician can decide the colour of the *ǧinn*, and can take his measures accordingly. The so-called Gnawa, who stand in an especially intimate relation to the *ǧnûn*, and who are frequently called on to expel them from people who are ill, are said to dress both themselves and the patient in the colour of the *ǧinn* that is believed to be the cause of the patient's illness, but this I have not seen for myself. All the seven colours of the rainbow are used for magical purposes when the tribes of all the days of the week are concerned, and, also, when, as sometimes happens, the particular tribe immediately concerned cannot be found out. But a good magician, I am told, does not make frequent use of the seven colours. The colour of an animal which is offered to the *ǧnûn* generally is black.

The performance by means of which the Gnawa endeavour to expel the *ǧnûn* is often very complicated, and may last for days. They sing and dance; walk round the patient, and make wry faces close to him; take him on their necks and carry him about, etc., etc. On Saturdays they eat dirt, because Saturday is the day of the Jewish *ǧnûn*, which are fond of dirt. I saw some of these practices performed in Marrakesh, when one of my servants feigned sickness, and the *mḳaddam*, or chief, of the Gnawa, together with an assistant, tried to cure him. I also called in a magician from Sûs. He pressed my servant's thumb, pinched his ear, and whispered into it passages from the Koran. He assured me that it was sometimes necessary to continue such whispered recitations for hours before the evil spirit would take flight. Passages of the Koran are also written upon a piece of paper,—which is often black, or coloured in accordance with the colour of

Digitized by Google

the *ǧinn*, and the paper is then hung round the patient's neck or burnt before his nose. In the latter case it is the smoke from the burning paper that is supposed to expel the *ǧinn*.

In cases of disease recourse is frequently had to beings who are sometimes called sultans, and sometimes saints of the *ǧnûn*. To this class belong Sîdi Ḥammu and his son Sîdi Ḥammûda, Sîdi Mäimûn, Lalla Mäimûna, Lalla Mîra, Lalla Rḳeja, Sîdi Mûsa, Sîdi Busäḥba, Shum Hârush and his son, *sulṭān l-kḥal*, Sîdi Boḳnâdel, etc. All these have their *ḥammat(s)*, or offering places, which are often nothing more than big stones near or in the sea. Opinions vary, however, about the nature of these beings. Some of them are said by certain people to be ordinary human saints, and their master is Mulai 'Abd l-Ḳâder, the sultan of all the saints. To the *ǧinn*-sultans offerings are made by patients or their families, to enlist their assistance in driving away the molesting *ǧinn*. Very frequently cocks are carried to the *ḥammat(s)* of these saints, and are either slaughtered there, or left there alive. One morning at Tangier, I saw several women walk to a large stone in the sea, the *ḥamma* of Sîdi Mûsa. They kissed the stone, placed on it some candles and incense, and had a bath on the other side of it.

A regular *ǧinn*-cult is practised by the Gnawa, of whom we have already spoken. They are usually, but not always, blacks from the Sudan, and they form a regularly-constituted secret society. They live on more or less amicable terms with the *ǧnûn*, and, as I have already said, are experts in exorcism. The Gnawa celebrate an annual feast at which they make sacrifices to the *ǧnûn*. I was at Tetuan this year when the feast took place. The Gnawa went in procession, with noisy music, to a spring called *'ain ṣ-ṣâwar*, near the Moorish cemetery outside the town. They took with them a black bullock, a black goat, and a black donkey carrying several chickens of various colours. When they came near the spring they danced, burnt incense, and lighted candles. The bullock was then killed, and the man who slaughtered it sucked blood from its throat. The other animals shared the same fate. Unfortunately I did not arrive at the spot until the proceedings were just over, but I am speaking from credible hearsay. When provisions are dear, the Gnawa go to the *ḥamma* of some *ǧinn*-sultan,—Sîdi Ḥammu being a special favourite,—or to the place where the *ǧinn*-sultans generally reside.

The Gnawa pretend not only to expel *ǧnûn*, but, also, to attract them at their will. By inhaling the smoke of a certain incense and by dancing, they induce the *ǧnûn* to enter their bodies, and, when thus possessed, they are able to tell future events. I have twice been present at a *séance* in the Moorish fashion. The magician, a black man from Sûs, wrote some mystic signs on a sheet of paper which he fastened to the wall. Having thus written a letter to the spirits, he blew out the light, and demanded absolute silence. After a few minutes a tremendous noise was heard: the *ǧinn* came down along the wall, and ran to the magician. A dialogue between the *ǧinn* and the magician ensued, after which the *ǧinn* went away over the roof. Nothing else could be seen in the dark but the vague outline of a moving body. The *ǧinn* once shook hands with me, and the hand

Digitized by Google

was that of a man. The magician had no assistant. He was undoubtedly a good ventriloquist, and endowed with exceptional powers of seeing in the dark.

The *ǧnûn* are, generally speaking, lacking in individuality. Their characteristics are those of the species and of the tribe. Each tribe has not only its special colour, but also its special religion. There are Muhammedan, Jewish, Christian, and pagan *ǧnûn*. Moreover, the different tribes attack men under different conditions. According to a manuscript which was given to me by a magician belonging to the tribe Ební 'Arús, the Sunday *ǧnûn* will attack a man if he wash himself whilst perspiring; the Monday *ǧnûn*, if he walk on ashes at night; the Tuesday *ǧnûn*, if he walk on blood; the Wednesday *ǧnûn*, if he walk in a watery place; the Thursday *ǧnûn*, if he tread upon them in the dark; the Friday *ǧnûn*, if he walk in dirt; the Saturday *ǧnûn*, if he go out at night in a state of perspiration. At the same time, there are, as we have seen, among the *ǧnûn*, saints and sultans who, at any rate, possess proper names, and there is one *ǧinnîa* who has a very distinct individuality, viz., 'Aisha Ḳandîsha. She lives in rivers, or wells, or in the sea. She appears in various shapes, now as a child, now as a grown-up woman, with long hair and a beautiful face, but with the legs of a goat or an ass. She knows the name of every man, but when she calls anybody he should not answer her, for she is very dangerous. Not only does she kill men, she is, also, sometimes said to eat them. She will, however, disappear at once if a knife, or even a needle, be shown to her, for, like all *ǧnûn*, she is afraid of steel. She seems to be known everywhere in Morocco. The people of Tetuan say that she lives in the river, outside the town, at a place where there is a ruined bridge. She seizes and kills people who bathe there; and every year three or four men are said to fall victims to her in this way. In the summer, when it is very warm, she is sometimes seen sitting on the shore. At other places, she is said to dwell in the sea. A Moorish friend of mine tells me that, in his childhood, his mother used to warn him against 'Aisha Ḳandîsha when he was going to bathe. She has a husband called Ḥammu Ḳaiu, who is not much spoken of. But in the neighbourhood of Mequinez a man told me that he had once seen him in a river.

The *'afârit*, (عفرت) sing. *'âfrit* (عفريت)[1] form a special class of *ǧnûn* remarkable for great strength and ferocity, and, consequently, much dreaded. The Moors also believe in the existence of beings named *ġuûl* (الغوال) sing. *ġôl* (الغول), who have black faces and eyes like flaming fire, and are fond of human flesh. There are, however, no *ġuûl* in Morocco. They live only in the Sudan, and in Morocco one hears of them chiefly from mothers who want to frighten their children. I have heard some people say that the *ġuûl* are not *ǧnûn*, but form a species by themselves, whereas others are of opinion that they belong to the *ǧinn*-kind.

These are, so far as I have been able to ascertain, the main features of the belief in *ǧinn* as it exists among the people of Morocco at the present day. My

[1] In the North of Morocco pronounced *'afârits* sing. *'âfrits*.

Digitized by Google

next object will be to show that this belief, in all its essentials, and in a great many of its details, is identical with that of the Eastern Arabs, and may be said, in the main, to represent part of the old Arab religion, in spite of the great mixture of race which has taken place on African soil.

It is related in histories that, in ancient times before the creation of man, a race of *ǧinn* "inhabited the earth and covered it, the land and the sea, and the plains and the mountains."[1] Human or animal characteristics are universally attributed to them. Of the belief in marriages between men and female *ǧinn*, there are instances recorded both in Arabic literature,[2] and in Doughty's description of his recent travels in the Arabian desert.[3] According to a tradition from the Prophet, the *ǧinn* inhabit the land, the sea, and the air.[4] They are stated to live not only in uninhabited places, such as deserts, marshes, dense forests, and inaccessible mountains, but also in the dwellings of men.[5] In Mecca houses haunted by *ǧinn* are said to be *meskūn*.[6] The modern Egyptians believe that the *ǧinn* "inhabit rivers, ruined houses, wells, baths, ovens, and even the latrina."[7] But in the East, as well as in Morocco, their chief abode seems to be the under-world. In his *Travels in Arabia Deserta*, Doughty states, "They inhabit seven stages, which (as the seven heavens above) is the building of the under-world."[8] They are frequently supposed to be guardians of hidden treasures.[9] In Egypt, says Lane, it is a custom, "on pouring water, etc., on the ground, to exclaim or mutter, 'Destoor,'—that is, to ask the permission or crave the pardon of any ginnee that may chance to be there."[10] The fact that the chief abode of the *ǧinn* is the under-world is, in fact, a corollary from the belief that they live in the dark and disappear at daybreak.[11] Everywhere the *ǧinn* are feared chiefly in the dark. Thus, in Upper Egypt, according to Klunzinger, nobody ventures to live in a house alone, to go out alone late at night, or to remain alone in a room at night. According to the same authority it is not considered permissible to sweep out a house at night, because some *ǧinn* might be struck and injured by the broom, and, for similar reasons, people do not care to have anything to do with cats, as these may be *ǧinn* in disguise.[12]

In the East, as in Morocco, the shapes which the *ǧinn* assume vary indefinitely. They appear to mankind not only in the shapes of serpents, scorpions, dogs, cats, wolves, jackals, lions, and other animals, but also as human

[1] Lane, *Arabian Society in the Middle Ages*, pp. 29 *sq.*

[2] von Kremer, *Culturgeschichte des Orients unter den Chalifen*, vol. ii, p. 259; Wellhausen, *Reste arabischen Heidenthums* (1897), p. 154.

[3] Doughty, *Travels in Arabia Deserta*, vol. ii, pp. 191 *sqq.*

[4] von Kremer, *loc. cit.*, vol. ii, p. 257.

[5] Wellhausen, *loc. cit.*, pp. 149 *sqq.*; von Kremer, *Studien zur vergleichenden Culturgeschichte* part ii, p. 26.

[6] Snouck Hurgronje, *Mekka*, vol. ii, p. 128.

[7] Lane, *Manners and Customs of the Modern Egyptians* (1896), p. 232.

[8] Doughty, *loc. cit.*, vol. i, p. 259.

[9] von Kremer, *Studien*, part ii, pp. 30 *sqq.*

[10] Lane, *Modern Egyptians*, p. 232.

[11] *The Koran*, sur. cxiii, v. 3.

[12] Klunzinger, *Upper Egypt*, pp. 389 *sq.*

Digitized by Google

beings, in which latter case they are sometimes of the stature of men, and sometimes of a size enormously gigantic.[1] An Arab told Doughty that "for a while he could perceive nearly a half part of all who bear the form of mankind to be jins."[2] In the *Arabian Nights* they are often represented as appearing, first of all, in a monstrous undefined shape, like an enormous pillar, and as only gradually assuming a human shape and less gigantic size. The extreme changeability of the appearance of the *ǧinn* is well illustrated in the twenty-second *Night*, where we read of an *'ifrît* who came out of a water-tank in the semblance of a mouse. It grew and grew, until it became, first a coal-black cat, then a dog, then an ass-colt, and finally it became a buffalo.

The Oriental *ǧinn* indicate their presence in very much the same way as their Moorish brethren. Lane says that it is the general belief of the Arabs of Egypt that the whirlwind which raises the sand in the form of a pillar is caused by the flight of one of these beings.[3] It seems quite probable that the idea expressed in the Koran[4] that the *ǧinn* were created of smokeless fire was derived from the strange phenomenon of *ignis fatuus*, which the present-day Arabs,[5] like the Moors, believe to be lighted by *ǧinn*. The superstition with regard to a falling star finds support in some texts of the Koran, according to which the *ǧinn* listen at the gate of heaven for scraps of the knowledge of futurity, and, when detected by the angels, are driven off, and pelted with shooting stars.[6] Many Arabs ascribe the erection of the Pyramids, and all the most stupendous remains of antiquity in Egypt, to Ǧann Ibn-Ǧann and his servants, the *ǧinn*, "conceiving it impossible that they could have been raised by human hands."[7] The Eastern *ǧinn* as well as the Western *ǧnûn* are also disease-spirits. They cause asphyxia, lumbago, epilepsy, epidemics, madness, etc.[8] "Mankind, after the Arabs' opinion," says Doughty, "may be vexed in their bodies and minds by possession of the jan . . . Strange maladies and lunatic affections are ascribed to their influence; scorned and bewildered persons are said to be 'bejinned,' *mejnûn*, demoniacs."[9] They also think that a man who is asleep ought not to be awakened; but the reason Doughty gives for this opinion differs from that assigned by the Moors. The sleeping man, he observes, "is as it were in trance with God."[10]

Iblis is, of course, known to all the Muhammedan peoples. In the Koran his name always appears without the article, as a proper name, whereas the Moors, as

[1] Lane, *Arabian Society*, p. 35; von Kremer, *Culturgeschichte*, vol. ii, p. 257; Wellhausen *loc. cit.*, p. 156.

[2] Doughty, *loc. cit.*, vol. ii, pp. 189 *sq.*

[3] Lane, *Modern Egyptians*, p. 232; *cf.* Wellhausen, *loc. cit.*, p. 151; von Kremer, *Studien* part ii, p. 29, note 3.

[4] *The Koran*, sur. xv, v. 27; sur. lv, v. 14.

[5] Burton, in his translation of the *Arabian Nights*, vol. i, p. 398, note 3.

[6] *The Koran*, sur. lxxii, v. 9; *cf. ibid.*, sur. lxvii, v. 5.

[7] Lane, *Modern Egyptians*, p. 236.

[8] Wellhausen, *loc. cit.*, pp. 155 *sq.*; von Kremer, *Culturgeschichte*, vol. ii, pp. 257 *sqq.*

[9] Doughty, *loc. cit.*, vol. i, pp. 258 *sq.*

[10] *Ibid.*, vol. i, pp. 249 *sq.*; *cf.* Wellhausen, *loc. cit.*, p. 163.

Digitized by Google

already said, also have the plural *ibâlis*, though it is rarely used. Al-Buchâry says that yawning comes from Iblis,[1] and the Egyptian fellah believes that "there is always a devil ready to leap down his throat in case he should happen to gape."[2]

The Eastern *ǧinn* are afraid of iron and salt, as also of sacred words.[3] Baron von Kremer suggests that their fear of iron is owing to their fear of a loud rattling noise, such as that produced by metal, but this view is hardly correct.[4] Professor Tylor's explanation seems to me much more satisfactory. The *ǧinn*, he observes, are essentially creatures belonging to the ancient Stone Age, and the new metal is hateful and hurtful to them.[5] It should be remembered that they are not afraid of any metal but iron or steel, and that they have the same dread of salt, which produces no noise, but which is also an innovation to the Arabs. There are Beduin tribes who, up to the present time, know nothing of salt, and find the use of it ridiculous.[6] It will perhaps be suggested that the *ǧinn* fear salt because salt is sacred.[7] But bread is held in equal veneration by all Arabic peoples, and is nevertheless much liked by the *ǧinn*; and iron is the very reverse of being sacred. In Morocco, at least, it is regarded as sinful to cleave bread with a knife. Again, the fear in which the *ǧinn* stand of passages of the Koran is easily explicable from the fact that Muhammedanism was the successful rival religion, which, though recognising the existence of *ǧinn*, attributed to them a very inferior position in the spirit-world. The Arabs of Egypt, according to Lane, believe that, during the month of Ramaḍan, the *ǧinn* are confined in prison.[8] In Morocco, as we have already seen, the imprisonment is thought to last only until the twenty-seventh night of that month, and the same belief seems to prevail in Algeria.[9]

The Beduins of the Arabian Desert sprinkle blood upon newly-broken fallow, upon the foundation of a new building, and, also, when they open new wells or enlarge old ones.[10] In Al-Heǧr, says Doughty, husbandmen "use to sprinkle new break-land with the blood of a peace-offering: the like, when they build, they sprinkle upon the stones, lest by any evil accidents the workmen's lives should be endangered."[11] It was the opinion of the early Arabs, as it is of the present Moors, that particular *ǧinn* preside over particular places. It is said in the Koran, "And there are persons amongst men who seek for refuge with persons amongst the

[1] Wellhausen, *loc. cit.*, p. 163.

[2] St. John, *Village Life in Egypt*, vol. i, p. 262.

[3] Lane, *Modern Egyptians*, pp. 232, 235; von Kremer, *Studien*, part ii, pp. 36 *sq.*; Doughty *loc. cit.*, vol. ii, pp. 2 *sq.*

[4] von Kremer, *Studien*, part ii, pp. 36 *sq.*

[5] Tylor, *Primitive Culture* (1891), vol. i, p. 140.

[6] A. von Wrede's *Reise in Ḥadhramaut*, edited by von Maltzan, p. 94.

[7] *Cf.* D'Arvieux, *Voyage dans la Palestine* (1717), p. 167; Burton, *Pilgrimage to Al-Madinah and Meccah* (1898), vol. ii, p. 112.

[8] Lane, *Modern Egyptians*, p. 235.

[9] Certeux and Carnoy, *L'Algérie traditionelle*, p. 83. The *ǧinn* are there said to be confined in prison "dans les vingt-sept premiers jours du mois de Ramadan."

[10] Doughty, *loc. cit.*, vol. i, p. 452.

[11] *Ibid.*, vol. i, p. 136

Digitized by Google

ǧinn."[1] In the commentary of Al-Ǧalâlān we find the following note upon this passage:—"When they halted, on their journey, in a place of fear, each man said, 'I seek refuge with the Lord of this place, from the mischief of his foolish ones.'" The modern Arabs have the same belief in the local lordship of the *ǧinn.*[2] The Egyptian fellahs hold that "every place, every part of a house, is inhabited by its peculiar genius;"[3] and in Cairo, according to Lane, each quarter of the city is supposed to have its guardian-spirit, which has the form of a serpent.[4]

As for the expulsion of *ǧinn*, Doughty observes that there are exorcists in Arabia who make people believe that, by reading powerful spells out of the Koran, they can terrify and expel the possessing demons.[5] According to Snouck Hurgronje, transference of disease is practised in Mecca. When a child is ill, its mother puts seven loaves of bread under its pillow, and then, after the child has slept on them for a night, gives them to the dogs to eat.[6] In the literature on the Eastern Arabs I have found no exact counterpart to the Moorish *ḍiâfa*, but a very similar custom is reported to exist in Timbuctoo. When a men is sick, we are told, some saint is asked what animal must be sacrificed for the recovery of the patient, whether a white cock, a red cock, a hen, an ostrich, an antelope, or a goat. "The animal is then killed in the presence of the sick, and dressed; the blood, feathers, and bones are preserved in a shell and carried to some remote spot, where they are covered and marked as sacrifice. No salt or seasoning is used in the meat, but incense is used previous to its preparation. The sick man eats as much as he can of the meat, and all present partake; the meat and what else is dressed with it, must be the produce of charitable contributions from others, not of the house or family; and every contributor prays for the patient."[7] No idea of a transference of the disease is involved in this practice. Those parts of the animal which are not eaten by the patient and his friends are expressly said to be covered, which is certainly not the case in Morocco, where an observant eye can frequently detect remains of the *ḍiâfa*-food on the roadside. Considering the important part the Gnawa play as exorcists in Morocco, it seems more than probable that many practices connected with the expulsion of *ǧnûn* have a Sudanese origin.

The Eastern *ǧinn* display no more individuality than the Moorish ones; rather less. The Moorish belief in *ǧinn*-sultans is evidently local. The *ǧinn*-society is made up after human fashion, and, as the ancient Arabs were democrats, there can be no doubt that their *ǧinn* were so too. Even Iblis is of foreign extraction.[8] On the other hand, as Morocco is a monarchy, it is only natural that its *ǧnûn* also should be monarchists. Exactly the same is the case in India. From Jaffur Shurreef's interesting account of the customs of the

[1] *The Koran*, sur. lxxii, v. 6.
[2] St. John, *loc. cit.*, vol. i, p. 262.
[3] Doughty, *loc. cit.*, vol. i, p. 259.
[4] Lane, *Arabian Society*, pp. 38 *sq.*
[5] Lane, *Modern Egyptians*, pp. 235 *sq.*
[6] Snouck Hurgronje, *loc. cit.*, vol. ii, p. 121.
[7] Jackson, *An Account of Timbuctoo and Housa . . . by el Hage Abd Salam Shabeeny*, p. 33.
[8] von Kremer, *Culturgeschichte*, vol. ii, p. 255; Wellhausen, *loc. cit.*, p. 157.

Digitized by Google

Muhammedans of that country, it appears that their various tribes of *ǧinn* have each their king.[1] There is, however, in the East, also, one member of the *ǧinn*-species which possesses a distinctly marked individuality. Doughty speaks of a monstrous creature believed in by some desert Arabs, who call it Sa'lewwah. "This salewwa is like a woman, only she has hoof-feet as the ass." A desert man told him that "she entices passengers, calling to them over the waste by their names, so that they think it is their own mother's or their sister's voice."[2] Von Kremer identifies this being with Ġule, a female demon often mentioned in Arabian tales. Ġule passes a solitary existence in the deserts, and appears to persons travelling alone in the night, and, being supposed by them to be herself a traveller, lures them out of their way. She not only converses with the travellers, but sometimes prostitutes herself to them. She resembles both a woman and a brute. She has long pendant breasts, and the feet of an ass. Moreover, she is a man-eater.[3] This description of Sa'lewwah-Ġule recalls all the chief characteristics of the Moorish 'Aisha Ḳandîsha, except that the latter is intimately connected with the water, whereas the former is a desert demon. But this distinction is hardly important, considering that the Moorish *ǧnûn* generally have their favourite abodes in watery places. I believe then that 'Aisha Ḳandîsha is Sa'lewwah-Ġule, somewhat modified; and just as 'Aisha Ḳandîsha is married to Ḥammu Ḳaiu, so Ġule has a male pendant called Ḳuṭrub.[4] The Moorish *ġuál*, on the other hand, have retained their Eastern character of residing in the desert, where they keep up their traditional reputation for feeding on human flesh.[5] The *'afârit(s)*, too, have their home in the East.[6]

Having thus analysed the belief in *ǧinn* as it is known from direct observation and written records, we shall now turn to the question of its origin. The most famous explanation has been attempted by Professor Robertson Smith. He maintains that it requires a very exaggerated scepticism to doubt that the *ǧinn* are, mainly, nothing else than more or less modernised representatives of animal kinds, or totem animals. "In the old legends," he says, "the individual *jinnī* who may happen to appear to a man has no more a distinct personality than a beast. He is only one of a group of beings which to man are indistinguishable from one another, and which are regarded as making up a nation or clan of superhuman beings, inhabiting a particular locality, and united together by bonds of kinship and by the practice of the blood-feud, so that the whole clan acts together in defending its haunts from intrusion, or in avenging on men any injury done to one of its members. This conception of the communities of the *jinn* is precisely identical with the savage conception of the animal creation. Each kind of animal is regarded as an organised kindred, held together by the ties of blood and the

[1] Jaffur Shurreef, *Customs of the Mussulmans of India*, p. 217.
[2] Doughty, *loc. cit.*, vol. i, p. 54.
[3] von Kremer, *Studien*, part ii, p. 54; Lane, *Arabian Society*, pp. 42 *sq.*
[4] Lane, *Arabian Society*, p. 43.
[5] *Idem*, *Modern Egyptians*, p. 237.
[6] *Ibid.*, p. 236; Burton, in his translation of the *Arabian Nights*, vol. i, p. 10, note 2.

Digitized by Google

practice of blood revenge." The *ǧinn* usually appear to men in animal form, though they can also take the shape of men. This last feature, however, cannot be regarded as constituting a fundamental distinction between them and ordinary animals in the mind of the Arabs, who believed that there were whole tribes of men who had the power of assuming animal form. The supernatural powers of the *ǧinn* do not differ from those which savages, in the totem stage, ascribe to wild beasts. They appear and disappear mysteriously, and are connected with supernatural voices and warnings, with unexplained sickness or death, just as totem animals are: they occasionally enter into friendly relations or even into marriages with men, but animals do the same in the legends of savages: finally, a madman is possessed by the *ǧinn*, but there are a hundred examples of the soul of a beast being held to pass into a man. Like the wild beasts, the *ǧinn* have, for the most part, no friendly or stated relations with men, but are outside the pale of man's society: they frequent savage and deserted places far from the wonted tread of men, their special haunts being just those which wild beasts most frequent. Ultimately, however, the only animals directly and constantly identified with the *ǧinn* are snakes and other noxious creeping things, which continue to haunt and molest men's habitations after wild beasts have been driven out in the desert.[1]

We shall see whether these statements are correct, and, if so, whether they have any bearing on totemism. It is true that, among the *ǧinn*, the individual has no distinct personality, and is only one of a group or a clan. It is also true that each kind of animal is often regarded by savages as analogous to a more or less organised community, in which the individual is lost sight of. But the same holds good, to a great extent, for savage men. They form tribes or clans, and the members of each group are "united together by bonds of kinship and by the practice of the blood feud," whilst the members of the group are hardly taken into account at all as individuals. It is from this organization of human society that the idea of animal tribes is derived. Man has a tendency to anthropomorphism. He models nature after the fashion of his own nature. The Moors believe that all animals had a language in Sîdna Sulejman's days. They also say that the horse prays to God when he stretches out his leg, and that the donkey which falls down asks God that the same should happen to its master. Now, as is well known, man also attributes human qualities to the supernatural beings in whose existence he believes. He does so to gods, and he does so to demons. Why, then, should we believe that the similarity between the *ǧinn*-clans and the several species of animals is due to identity, instead of regarding it as the natural result of an analogous derivation from the common root-idea of human society? How closely the *ǧinn* imitate men, is shown by the fact that in countries where there are sultans or kings, as in Morocco and India, each nation of *ǧinn* also has its sultan or king.

Professor Robertson Smith attaches much importance to the fact that the *ǧinn* most frequently appear to men in animal form. He does not deny that, according to Arab beliefs, they also may appear in the shape of human beings,—

[1] Robertson Smith, *The Religion of the Semites* (1894), pp. 120, 126 *sqq.*

Digitized by Google

although he underrates the frequency of such cases,—but he thinks that he solves the difficulty by a reference to the tales of men who were transformed into animals. Such tales are met with in all Arab countries. The Moors say that the monkey was once a man whom God changed into his present shape because he performed his ablutions with milk, and that the stork was a *ḳaḍi*, or judge, who was made a stork because he passed unjust sentences upon his fellow-creatures. But such stories are not to the point. Professor Robertson Smith gives no instance of an animal assuming the shape of a man. Moreover, the *ǧinn* are also disease spirits. They are believed, both in Morocco and in Arabia, to cause disease by actually entering into the man who is taken ill, a belief which manifests itself very plainly in the practices of the exorcists, and I see no reason for not regarding this belief as equally ancient and genuine as the rest. A totem animal, it is true, may also cause disease in a similar way, but, so far as I know, only if it is eaten.[1] Savages know nothing of microbe totems.

It should be borne in mind that the *ǧinn* only incidentally, never permanently or necessarily, have the shape of certain animals. One of their chief characteristics is their extreme changeability. They make themselves visible or invisible just as they like, change rapidly from one form into another, and, at their pleasure, take up their abode wherever they please. The totem, on the other hand, is a class of material objects, and a totem animal is essentially an animal, though assumed to be endowed with some mysterious power. Further, the animal totem is an animal species, and every member of it is a representative of the totem, whereas the *ǧinn*, when appearing in the shape of an animal, does so only individually. There is absolutely no connection known between certain tribes of *ǧinn* and certain species of animals, nor is the whole animal species looked upon as *ǧinn*, although these at times assume the form of individual members of it. Every dog, every cat, every tortoise is not supposed to be a spirit in disguise. Professor Robertson Smith maintains, indeed, that some animal species, especially the lion, were objects of actual worship among the Arabs,[2] but Baron von Kremer, the learned Arabic scholar, has shown that this assertion has no foundation.[3] The Moors avoid killing certain species. He who kills, and especially he who eats, a crow, they say, turns mad. They account it a sin to kill a stork, since the stork was once a judge. They maintain that he who kills a toad will get fever, or die, and they are afraid of destroying tortoises. They do not like to kill white spiders, because a white spider had once woven its web across the mouth of the cave where Muhammed was concealing himself from his enemies. These, when they came to the cave in their search, and saw the web, thought that no one could have recently entered it, and so passed it by without examining it, and the Prophet escaped. Many Moors do not eat white chickens, because they are the birds of Mulai 'Abd l-Ḳâder, the great saint. Near the

[1] *Cf.* Frazer, *Totemism*, pp. 16 *sqq.*

[2] Robertson Smith, *Kinship and Marriage in Early Arabia*, pp. 192 *sqq.*

[3] von Kremer, *Studien*, part ii, pp. 20 *sq.*

Digitized by Google

village Ební Úmras, belonging to the tribe Ební 'Arús, dogs and goats are often seen in the neighbourhood of a haunted spring, and he who beats them is said to go mad. In the same district, within the precincts of Sîdi Heddi's sainthouse, there are certain fish which are fed by the clients of the saint, and never eaten, being regarded as sacred. There may thus be various reasons for abstaining from killing certain kinds of animals, and one reason is undoubtedly the belief that the animal might be a *ǧinn*, which could avenge the injury inflicted on it; but this does not indicate previous totemism. It is significant, and it seems almost strange, that no closer connection exists between the *ǧinn* and particular animal species than what is actually the case. So far as we know, there is only one kind of animal which, according to ancient Arab beliefs, permanently possesses a demoniacal nature, viz., the snake. "In every snake," says Wellhausen, "there is a spirit embodied, now a malevolent, now a benevolent."[1] Muhammed, whilst commanding his followers to kill the obnoxious snakes, expressly forbid them to hurt those innocuous ones which they found in their houses.[2] In modern Arabia, according to Niebuhr, harmless snakes "take their refuge in the walls of houses, and are esteemed agreeable guests by the inhabitants."[3] There are also traces of veneration for household snakes in Morocco, where a snake which is seen in a house is frequently taken for a good *ǧinn*, the guardian-spirit of the house.[4] The fact that the ancient Arabs regarded snakes as *ǧinn*, however, does not involve that the snakes were totem animals. Animal worship is not the same as totemism. Moreover, according to Nöldeke, no trace of actual worship of snakes is to be found in ancient Arabia.[5]

The statement that the special haunts of *ǧinn* are the places most frequented by wild beasts, is certainly not in accordance with facts. We have seen that men are surrounded by *ǧinn*, that the *ǧinn* haunt places where no wild beasts ever go, even human habitations, that every place has its owners, its *ǧinn*, and that their principal abode is the under-world. Finally, a totem is not only a class of objects which are regarded with superstitious respect, but one to which man believes himself to stand in an intimate and friendly relation. The *ǧinn*, on the contrary, habitually appear as man's enemies. Professor Robertson Smith is aware of this difficulty, but tries to reconcile it with his theory. The general answer to it, he says, "is that totems, or friendly demoniac beings, rapidly develop into gods when men rise above pure savagery. . . . It is natural that the belief in hostile demons of plant or animal kinds have given way to individual

[1] Wellhausen, *loc. cit.*, p. 153.

[2] Nöldeke, *Die Schlange nach arabischem Volksglaubem*, in *Zeitschrift fur Völkerpsychologie*, vol. i (1860), pp. 415 *sq.*

[3] Niebuhr, *Travels through Arabia* (1792), vol. ii, p. 278.

[4] Veneration for household snakes seems to be more prevalent among the Berbers than among the North African Arabs; see Dr. Brown's note in his edition of Leo Africanus, *The History and Description of Africa* (1896), vol. ii, pp. 655–657.

[5] Nöldeke, *loc. cit.*, p. 416.

Digitized by Google

gods, whose original totem associations are in great measure obliterated."[1] Whatever else may be said against this reasoning, it is enough here to point out that Professor Tylor has recently argued, with his usual force, against premature conjectures as to the origin of deities from totem animals, justly protesting against "the manner in which totems have been placed almost at the foundation of religion."[2]

It seems to me, then, that the application of the totem theory to the Arabic *ǧinn* involves a radical misunderstanding of their nature. Writers on the history of religion often mould the religious phenomena into too narrow forms, whether the form is headed ancestor-worship or totemism. The conception of *ǧinn* implies a generalization on a much larger scale. The *ǧinn* are beings invented to explain what seems to fall outside the ordinary pale of nature, the wonderful and unexpected, the superstitious imaginations of men who fear. They dwell under the earth, not, I think, because they have been driven there by a new triumphant religion, but because men fear most in the dark. They so frequently assume the shape of animals, not because there is any intrinsic connection between animals and *ǧinn*, but because the *ǧinn* represent active forces, and, among living things, the animals are the most mysterious. Within the region of wonder, they act as disease-spirits, as nature-spirits, as guardian-spirits, as animal-spirits, even as human spirits. But they do not cover the whole field of the supernatural. There are spirits that have risen to a higher level, that have become objects of divine worship, gods, and that work miracles either directly or through some medium, for instance, a saint. The ancient Arabs, so far as we know them, divided the world of the supernatural between gods and *ǧinn*, also, as it seems, giving some share of it to the ghosts of dead men. With this restriction the *ǧinn* are what their name indicates. *Ǧinn* originally means "the secret," "the hidden,"[3] in fact, the mysterious.

DISCUSSION.

Mr. CROOKE gladly recognised the value of Dr. Westermarck's contribution to the knowledge of a very obscure chapter of demonology. He regarded this refutation of Dr. Robertson Smith's theory of the connection of the Ǧinn with totemism as conclusive. On the other hand, there appears much to be said for the theory that the Ǧinn originally represented the wilder and hence unaccounted for forces of Nature—the spirits of the desert and waste places which are naturally regarded as the home of mystery. In this view, their identification with animals seems to be sufficiently accounted for. They are, in fact, survivals of the early indigenous animistic beliefs, which were at a later date absorbed and developed under the influence of Islâm.

[1] Robertson Smith, *Religion of the Semites*, pp. 443 *sq.*

[2] Tylor, "Remarks on Totemism," in *Journ. Anthrop. Inst.*, Aug.-Nov., 1898, p. 144.

[3] Nöldeke, in *Zeitschrift für Völkerpsychologie*, vol. i, p. 413, note ***; Wellhausen, *loc. cit.* p. 152.

Digitized by Google

Professor TYLOR, in expressing the sense of the meeting as to Professor Westermarck's study of the Ǧinn in Morocco, remarked that the first sentence of the paper showed the line along which he had approached the problem. The late Professor Robertson Smith, by his work on the *Religion of the Semites*, vastly improved the method and enlarged the horizon, of current theology by the introduction of anthropological evidence. But through the influence of his friend J. F. McLennan's *Primitive Marriage*, he was led to introduce too confidently the doctrine of Totemism as a leading factor on the religious side of ancient society, and he put forward the idea that the Arab beliefs as to the Ǧinn were evidence of an early stage of Totemism among the Semitic race. This view appearing to Dr. Westermarck questionable, he collected during his residence and travel in North Africa the particulars as to the beliefs as to the Ǧinn prevailing there, which are generalised in his paper read to-night. The result tells strongly against the identification of the ǧinn-belief with the totem-belief. The collection of the analogies alleged between the doctrine of ǧinn-animals with the doctrine of totem-animals shows, indeed, resemblances in the ideas of Arabs and other peoples, as to the relation of animals to men, but the word totem indicates the importation of an extraneous element into the discussion, which would no doubt be better conducted under the heading of animal worship.

Independently of the question of totemism, the mass of beliefs connected with the Ǧinn make us hope that Dr. Westermarck will use his opportunities to continue his researches in Morocco, and to follow up a line of research of which he as yet only indicates the need; namely, that of separating the other native ideas of Morocco from the imported Moslem beliefs which extend from the Straits of Malacca to the Straits of Gibraltar. When he points out that the Ǧinn are afraid of salt as well as of iron, this is apparently to carry Arab tradition back to a saltless as well as an ironless antiquity. How they have retained old prejudices while attaching new meanings to them, seems to come into view, when it is noticed that they object to waking a sleeper, but not for the usual reason, and that they object to looking at themselves in a mirror, but seemingly have forgotten the ancient reason they doubtless had. When Dr. Westermarck resumes his inquiries in North Africa, he may be able more or less to clear up the interesting question which he has doubtless had often before him, how to distinguish and delimit the two ways in which men or demons can appear and behave as beasts. Is transformation of Ǧinn into cats or tortoises or snakes something related to transmigration of souls, or is it considered to take place by quite a different process?

Digitized by Google

ORDINARY MEETING.

DECEMBER 12TH, 1899.

C. H. READ, Esq., F.S.A., *President, in the Chair.*

The Minutes of the last Meeting were read and signed.

The PRESIDENT introduced Mr. W. L. H. DUCKWORTH, who exhibited some new forms of Anthropometrical instruments manufactured abroad.

Dr. GARSON doubted if they were better or cheaper than some which he had lately had made in England, which are described in the new edition of *Notes and Queries.*

The PRESIDENT thanked Mr. DUCKWORTH, and complimented him on the neatness and usefulness of the instruments.

He then introduced Mr. WM. CROOKE, who proceeded to read his paper:—"Survivals in primitive rites of the disposal of the dead, with special reference to India."

Discussion was carried on by Mr. WM. GOWLAND, Dr. GARSON, Mr. A. L. LEWIS, and Mr. W. L. H. DUCKWORTH.

Mr. CROOKE replied to questions, and the PRESIDENT closed the proceedings with a vote of thanks to Mr. Crooke for a very valuable paper.

Digitized by Google

PRIMITIVE RITES OF DISPOSAL OF THE DEAD, WITH SPECIAL REFERENCE TO INDIA.

By W. Crooke, B.A.

[Read at the Meeting, December 12th, 1899.]

Last year in a paper read before this Institute I discussed certain questions connected with the Hill Tribes of Central India. I now propose to consider with somewhat greater detail the methods of disposal of the dead as practised in India.

Three important groups of custom centre round the three events of birth, marriage and death. The observances characteristic of these depend upon certain well-defined principles of savage philosophy, among which that of Taboo is prominent. By this is meant the conception of certain things as dangerous to handle or to have to do with. And this Taboo, like an infectious disease, is transmittable. Thus, the *enceinte* woman, the new-born child, the youth and maiden at puberty and marriage, and the corpse, are all more or less taboo. And the leading intention of the rites performed in connection with these events is to protect the tabooed individual as well as those brought in contact with him from the contagion which emanates from him.

Of these three great groups of custom that connected with death is the most complex and the most interesting. Taboo nowhere exhibits its potency more clearly than in connection with the dead. It influences races who believe that the ghost is friendly, as well as those who dread its malignity. For our present purpose this group of customs has this additional interest that we can support our interpretation of usages now current among savage or semi-savage peoples, by a great body of archæological evidence, which in the case of the rites of birth and marriage is necessarily non-existent.

In India, it is true, prehistoric archæology is still in its infancy. But enough has already been discovered to aid largely in the exploration of the usages of the existing races, and to prove that we have here a comparatively virgin field, which is likely to yield an abundant harvest whenever its investigation comes to be seriously undertaken.

All I propose to attempt at present is to consider the various modes of disposal of the dead.

These may be roughly divided into two classes—those in which the object is to preserve the body, or certain relics of it; and, secondly, those in which the ruling intention is to put the dead out of sight.

Digitized by Google

Of the first class we have a familiar example in the Egyptian custom of mummification, where the intention was to provide a refuge for the Ka or separable soul.[1] In the second division comes the habit of burial, which suggested the belief in an underground world of the dead. Cremation, on the other hand, was intended to etherealise the ghost and to permit it to reach its abode in heaven. But everywhere, as we shall see, we find these conceptions overlapping each other, or one gradually taking the place of the other.

To begin, then, with mummification. We find it in its fullest development in Egypt and in parts of the American Continent. But in Egypt it was not a primitive practice. It was unknown to the Pharaohs of the First and Second Dynasties, and the custom may have been due to the accidental fact that at El-Kab, opposite the early capital of Upper Egypt, the ground is impregnated with natron, which would have preserved the bodies buried in it from decay.[2] Elsewhere, as in the case of the royal graves at Mycenæ, it bears the appearance of a foreign custom, introduced only tentatively or in some special cases.[3] The references in the Homeric poems to the miraculous preservation from decay of the bodies of Hector and Patroclus, and the use of fat, oil and honey to preserve the corpse, suggest that the practice of embalmment may have been adopted to some extent.[4]

The evidence from India points in much the same direction. We find the same folk-belief in the possibility of securing the body from decay in the Deccan tales of Chandan Râja and Sodewa Bai.[5] There is, again, the early legend of Nimi, told in the Vishnu Purâna, whose corpse was preserved in oil; in the Râmâyana King Dasaratha is embalmed in oil; in the Mahâbhârata the corpse of Pandu is smeared with sandal paste.[6]

In modern India the evidence is equally fragmentary. Thus, in Kanaka, in Orissa, the corpse of the local chief is preserved in oil, and not cremated until his successor is installed; the throne, they say, must never remain empty.[7] In other cases, the practice seems to be based merely on convenience, as when the Khasiyas of the Himalaya preserve in honey those who die in the rainy season till the weather clears sufficiently to admit of cremation being performed.[8] But the practice assumes a clearer ritual significance among the Maghs of Bengal, whose custom it is to dry and embalm the bodies of their priests and persons of high

[1] The connection of the practice of mummification with the theory of the Ka is disputed by Professor F. Petrie, whose view is opposed by Professor Sayce, *Folk-lore*, ix, 339. The common view is held by Erman, *Life in Ancient Egypt*, 307.

[2] Sayce, *loc. cit.*

[3] Schuchhardt, *Schliemann's Excavations*, 158; Frazer, *Pausanias*, iii, 107, 155.

[4] *Iliad*, vii, 85; xvi, 465, 674; xix, 38; xxiii, 168, 187, 244.

[5] Miss Frere, *Old Deccan Days*, 227, 242.

[6] Wilson Hall, *Vishnu Purâna*, iii, 328; *Râmâyana*, Book ii, 68; *Mahâbhârata*, Adi Parva, sec. 66; *Journ. Anthrop. Soc., Bombay*, i, 39 *seq.*

[7] *Journ. Anthrop. Soc., Bombay*, iv, 311.

[8] Hooker, *Himalayan Journal* (Minerva Library), 486 *seq.*; Risley, *Tribes and Castes of Bengal*, ii, 34.

Digitized by Google

social position, and keep them for a year, when the funeral rites are done, or among the Kûkis of Assam, who smoke dry the bodies of chiefs and headmen, keeping them for two months, after which they inter them with great respect.[1]

We may, perhaps, suspect that the same idea underlies the practices of some of the modern ascetic bodies. Thus, by the Mânbhâv, religious beggars in Bombay, the grave is filled up with salt and earth; the Lingâyats of Pûna place round the corpse as much salt as they can afford, and then fill in the grave; the Gâvlis, a class of shepherds in Sholapur, fill in the grave with earth up to the level of the neck of the corpse; the head being sacred, it is covered with salt and then earth is piled over it: in Upper India the Gusâin mendicant is buried in salt.[2]

The Persians employed wax and the Assyrians honey in preserving the corpse, and it is possible that the practice may have reached India by this route. The Râjputs, among whom in particular the usage prevailed, are the result of a Yu-echi invasion from Central Asia. By the adoption of polyandry they are linked with the Himalayan races among whom it is still an institution. Among the Assam tribes usages of the same kind are suggestive of Mongoloid influence. At the same time, it is not impossible that the custom may have been independently evolved.

Next comes the custom of platform burial, which was possibly based on various converging lines of thought. First, came the desire to protect the corpse from profanation, and with this was possibly combined the idea of preventing the corpse, which is taboo, from touching the ground, and thus affecting the productive powers of the soil. Thirdly, there is the intention of preserving the bones as relics or charms. Many primitive races object to break the bones of animals, which they have eaten or sacrificed, from a belief in the resurrection of beasts, from a fear of intimidating other creatures of the same kind, or offending the ghosts of those which are slain.[3] The opinion, in short, underlying the various customs of preservation of remains was, to use Dr. Brinton's words, "that a part of the soul, or one of the souls, dwelt in the bones: that these were the seeds, which planted in the earth, or preserved unbroken in safe places, would in time put on once again a garb of flesh and germinate into living human beings."[4]

The habit of platform burial is widespread. We find it, for instance, in Fiji, where the body is placed on a platform, round which a child is passed to baffle the ghost, and the corpse is eventually buried: in Timor Laut those who die in

[1] Risley, *Tribes and Castes of Bengal*, ii, 34; *Journ. Anthrop. Inst.*, xxvi, 195; Hunter, *Statistical Account of Assam*, ii, 187; Dalton, *Descriptive Ethnology of Bengal*, 47, 56. Compare similar rites in the case of African chiefs, Featherman, *Nigritians*, 110, 156, 427, 441.

[2] *Bombay Gazetteer*, xvii, 183; xviii (1), 272; xvii, 214; xx, 151; Crooke, *Tribes and Castes of the North-Western Provinces*, ii, 469; Logan, *Malabar*, i, 130.

[3] Frazer, *Golden Bough*, ii, 124 *seqq.*

[4] *Myths of the New World*, 257. On bones kept as a palladium, see Frazer, *Pausanias*, iv, 95.

Digitized by Google

war or by violence, or in other words, the tabooed dead, are buried, while those who die a natural death are placed on rocks or platforms.[1] Among the Damaras it is combined with house burial. The chief sometimes requests that instead of being buried, his corpse may be placed in a squatting position on a platform erected in his hut, which is surrounded by a hedge or palisade.[2]

We have, perhaps, a variant of the same practice in the custom of burial on high places, as among the Tipperahs of Bengal, who place the ashes with the arms of the dead man on a hill, or the Khyens and Kirântis of Assam, who bury their dead on a sacred mountain, with the implied confidence that they are thus nearer their deified ancestors, who have gone to heaven.[3]

One explanation of the practice, to which reference has already been made, comes out in the case of the Aleuts, who, after clothing and masking the corpse, place it in a cleft of the rocks, or swing it in a boat cradle from a pole in the open air; for, they say, the corpse must not touch the ground, obviously because it is taboo and may injure the growth of the crops.[4] It is possibly for the same reason that the Burmese swing the coffin backwards and forwards before lowering it into the grave; they do this, they say, as a salute to the spirits of the dead who may here represent the chthonic powers which control vegetation.[5] So the Todas lift up the corpse and swing it three times from side to side before laying it on the pyre face downwards, in which the idea of baffling the ghost is possibly the predominant motive.[6]

Platform burial in India seems to be confined to the Nâgas of Assam, who continue this among other archaic practices in connexion with death.[7] They wrap the corpse in mats and dispose it on a platform raised and fenced in, while those who die by violent deaths, and are thus specially taboo, are tied up to trees on the spot where they fell without covering or ornament.[7] Special taboo is thus marked by the corpse being left nude, as among the Dravidians of Madras, the Mhârs, a menial tribe in Western India and the Gonds of the Central Hill Tract: it shows itself in a modified form even among the Chitpâvan Brâhmans of Pûna, who at the time of cremation remove and throw aside the head-shroud and the cloth covering the feet of the corpse.[8]

In the custom common among the Northern Mongolians, the Parthians, the Hyrkanians, the ancient Persians, and the modern Pârsis, who are, or were, in the habit of deliberately exposing the corpse to be devoured by birds of prey, we reach a practice the origin of which is directly associated with Central Asia.[9]

[1] *Journ. Anthrop. Inst.*, O.S., x, 145; xiii, 13, 298; xxiv, 309; xxvii, 431.

[2] Featherman, *Nigritians*, 670.

[3] Risley, *loc. cit.*, ii, 325; and compare Dalton, *loc. cit.*, 104 *seq.*; Yarrow, *Report of American Bureau of Ethnology*, 1879–80, p. 125; Bancroft, *Native Races*, i, 132; iii, 148

[4] Bancroft, *loc. cit.*, i, 93.

[5] *Burmah Gazetteer*, i, 386.

[6] Grigg, *Nilagiris*, 198.

[7] *Journ. Anthrop. Inst.*, O.S., xi, 203; xxii, 247

[8] *Folk-lore*, v, 25; *Bombay Gazetteer*, xxii, 114; Hislop, *Papers relating to the Aboriginal Tribes of the Central Provinces*, 19, App. vi.

[9] Rajendralâla Mitra, *Indo-Aryans*, ii, 160.

Digitized by Google

The dog was regarded as the sacred animal of the tribe—the totem, a member of the clan itself, as Dr. Jevons[1] chooses to call him, and the future happiness of the soul was regarded as conditional on absorption by, or communion with, the sacred beast. If this be so, the practice would be a survival of the earlier custom, when the deceased was eaten by the kin. But the practice seems to have been always repellent to the Hindu mind, and in the Mahâbhârata the horror felt at the dead being devoured by animals and fowls of the air is as well marked as in the Homeric poems.[2] It is within the Buddhist area that the custom shows itself most clearly. In Siam, for instance, if a person have ordered that his corpse shall be delivered to vultures and crows, a functionary cuts it up and distributes it to birds of prey.[3] In other places the custom is intended to honour the more distinguished dead. The minstrels of the Woloffs, for instance, are placed in a hollow tree as a prey to hyænas or vultures.[4] Elsewhere, again, the opposite feeling prevails, as when the Wagunda bury chiefs and expose slaves to wild beasts, and the habit of leaving warriors slain in battle to be devoured is common to the Latukas of East Africa, and the Pericuis of Mexico, who suppose that a future life was accorded only to those dying by a natural death.[5]

I venture to suggest that we may find a survival of rites of this class in the modern Hindu custom of feeding crows on the Pindas, or sacred balls, at the grave or place of cremation. The balls are laid out, and the mourners cannot leave the spot till the crows deign to eat them. It seems clear that the ball is supposed to be a part of the dead man, or to represent his flesh, because some castes, like the Parâjiya Brâhmans, and Oswâl Mârwâdis of Western India, tie one of these balls on the chest of the dead man as he is being removed for cremation, and this ball is given to the crows.[6]

The sacrificial motive of the offering is also marked by the fact that, if the balls are not consumed, the ghost is supposed to become angry and uneasy. The Sunârs of Ahmadnagar in this case suppose that the ghost will haunt the living; the Berads, jungle folk in Bijapur, think that the ghost is uneasy about the future of its family, and the chief mourner has to promise to provide for them.[7] If the crows refuse to touch the balls, other precautions are adopted. Thus, among the menial tribes, the Dâvris prepare an earthen crow and make it touch the offerings with its beak; the Bhois touch the ball with a crow made of the sacred Kusa grass, and the Ghisâdis give the ball to a cow; while among people of a higher grade, the Shenvi Brâhmans of Kanara touch the ball with a blade of sacred grass.[8]

The order in which the balls are eaten is also a matter of importance. The

[1] *Introduction to the History of Religion*, 203 *seq.*; Hartland, *Legend of Perseus*, ii, 305.
[2] *Mahâbhârata*, trans. Ray, v, 271, 468; vi, 34.
[3] Bowring, *Siam*, i, 122 *seq.*
[4] Featherman, *Nigritians*, 358.
[5] Featherman, *loc. cit.*, 103, 81; Bancroft, *loc. cit.*, iii, 542.
[6] *Bombay Gazetteer*, xvi, 70; xviii (1), 424.
[7] *Ibid.*, v 45; xvii, 81.
[8] *Ibid.*, xvii, 136, 207; xxiii, 96.

Digitized by Google

right ball should be eaten first, and it is in this connection important that the Pârsis, when they expose a corpse in their Towers of Silence, rejoice if a bird pecks out the right eye first, and mourn if the left be selected.[1] The rite is still further degraded in the case of the Kâmis of Bengal, who after laying out the food for the dead man, watch anxiously till a fly or other insect lights upon it.[2] Here, however, the dominant idea probably is that the fly represents the soul of the dead man.

At any rate, we find this custom of feeding the crows at death among the most degraded tribes, like the Kâthkaris, Berads, Bhîls, and Kâmis, and it seems possible that it may have arisen among them quite independently of foreign influence.[3]

In some cases the corpse is exposed not with the direct intention that it may be devoured by beasts and birds. Mountain burial prevails largely along the Himalaya. The Kirântis bury their dead on a hill-top in a loosely constructed stone tomb; in Spiti the dead are exposed on hills or sometimes cut up and exposed to beasts and birds.[4] Many authorities record similar customs among the Mongols and Tibetans, while the Kâfirs of the Hindu Kush expose their dead in coffins on mountains, and this up to quite recent times was the habit of the Bushkariks of the same region.[5] Here they follow a custom known to prevail among the dwarf race of the Paggi Islands, the Nias and Dayaks of Borneo.[6] On the whole, it seems doubtful whether such customs are racial; they seem, in many cases, to depend merely on caste or social changes.

The river-drift hunters and other early tribes do not seem to have disposed of their dead by interment,[7] and this is characteristic of some of the ruder tribes in India to this day. Thus, the Berads of Pûna bury their dead only in the very rudest way, or, as they say, "leave them in the bush to become spirits."[8] Sometimes, again, we find simple bush burial, as among the Anus of Burmah and the Khotils of Khândesh, who bury their dead in the jungle without form or ceremony, merely piling a few stones to mark the grave, while the Chalikata Mishmis of Assam bury the dead man with his arms and clothes in the forest.[9] The custom is slightly advanced among the jungle folk of Mirzapur, like the Ghasiyas and Agariyas, who perform the farce of cremation, often merely singeing the face and feet of the corpse and exposing it in the forest.[10] We have, I conjecture, a survival of this exposure of the corpse in the bush in the habit common in India of laying

[1] *Bombay Gazetteer*, xxi, 181; xvii, 157; xxiii, 192; xv (1), 167. [2] Risley, *loc. cit.*, i, 395.
[3] *Bombay Gazetteer*, xiii (1), 164; vi, 32. [4] *Settlement Report*, 204.
[5] Yule, *Marco Polo*, i, 188; *Journ. Anthrop. Inst.*, iii, 356; Biddulph, *Tribes of the Hindu Kush*, 71.
[6] Yule, *loc. cit.*, ii, 241; Roth, *Natives of Sarawak*, i, 139, 291.
[7] Keane, *Ethnology*, 143.
[8] *Bombay Gazetteer*, xviii (1) 406; compare the Zulu custom, Featherman, *Nigritians*, 600.
[9] *Burmah Gazetteer*, i, 186; *Bombay Gazetteer*, xii, 95; Dalton, *loc. cit.*, 21; compare the custom of the Râjis, *North Indian Notes and Queries*, iii, 117.
[10] Crooke, *loc. cit.*, i, 7; ii, 417.

Digitized by Google

the corpse on the ground as the funeral leaves the town or village; but here the rite often merges into a device for baffling the ghost.

In such matters conservatism is an active force, and we may suspect that the custom of corpse exposure prevailed more widely in former times when we find it to the present day applied to persons dying in a special state of taboo. Thus, the Savaras of Ganjam and the Mâles of Bengal deal in this way with persons dying from small-pox or snake-bite.[1] If one of the Madras Kâdirs dies in the forest, in other words, as they think, if he has fallen a victim to the angry jungle spirits, his corpse is placed in a crevice of the rocks and covered with stones.[2] Little children, again, are universally regarded as taboo because they have not undergone initiation, and hence all through Upper India their bodies are flung into water or exposed to animals. The same rule in some cases applies to priests who are under a permanent taboo. On the Northern frontier the corpses of such holy persons are cut in pieces and dispersed on the summits of mountains as food for birds, and the Pahariyas of Bengal simply leave the body of one of their Demanos or sorcerers under a tree.[3]

It seems to be generally admitted that in Europe inhumation preceded cremation and the latter seems to have arisen contemporaneously with the development of the potter's art. In India the course of development of custom appears to have been similar. The earlier Troglodytes buried their dead in the caves which formed their dwellings. Later on, the underground hut suggested cist and dolmen interment. The change in practice marks a new conception of the state of the dead, who no longer live in a gloomy underground world, but join their dead kinsfolk in the sky. The leading impulse may have been suggested by the greater mobility of some of the prehistoric races. As they abandoned their original settlements there may have arisen a natural desire to convey to a distant home the relics of the nobler dead; or, again, it may have been considered dangerous to leave such relics in a foreign land, because some evil-minded witch might work black magic by means of them. In fact, there is some evidence that these modes of disposal of the dead were racial peculiarities, inhumation being habitual to men of the long-headed type, while to the short-heads belongs the practice of incineration, following on that of contracted burial.[4]

In Europe inhumation seems to have lasted through the first two-thirds of the Neolithic Age, and in England and France various forms of interment seem to have co-existed with cremation, as was the case in the Homeric Age, when cremation, complete or partial, seems to have gone on side by side with inhumation.[5] "All the stages of such a transition can be seen in the Hallstatt burials at the dawn of the Iron Age in Central Europe: the Dipylon cemetery of the ninth

[1] Leman, *Ganjam*, 88; Risley, *loc. cit.*, ii, 59.

[2] Thurston, *Bulletins Madras Government Museum*, ii, 141.

[3] Cunningham, *Ladakh and Kunawur*, 188; Dalton, *loc. cit.*, 274.

[4] Borlase, *Dolmens of Ireland*, ii, 575.

[5] Borlase, *loc. cit.*, ii, 573; iii, 741 *seq.*; *Journ. Anthrop. Inst.*, O.S., v, 130, 132; iv, 128, 265; xxii, 7; xxvi, 255; Du Chaillu, *Viking Age*, i, 84 *seq.*; Nadaillac, *Prehistoric Peoples*,

Digitized by Google

century, or thereabouts, at Athens, shows inhumation in its older graves, incineration in its later. There are many instances of a corpse being inhumed, but its furniture and food supply burnt, and of the two practices long co-existing, though not being interchangeable in one community. The discrepancy, therefore, between the Epics and the remains of the great Mycenæan period in this respect also need be due to nothing more than a slight difference in their respective periods."[1]

The same modification of custom appears in Japan as well as in China. Here in the time of Marco Polo cremation was general, whereas it now survives only in the case of Buddhist priests.[2]

As for India—in the Vedas earth burial and cremation with subsequent burial of the bones and ashes are found to exist together, and in the period represented by the great Epics, the Mahâbhârata and Râmâyana, among the higher classes, at least, cremation with burial of the ashes or consignment of them to some sacred river seems to have entirely replaced inhumation.[3]

The same modification of custom has persisted up to our own times. Thus, among the tribes of the Hindu Kush cremation used to be the common form, the ashes being collected in rude wooden boxes or in earthen jars and buried.[4] Now Muhammadanism has taught them to bury the corpse, and this change of practice is, of course, common to all converts from Hinduism, one tribe in Northern India, the Gâras having, it is said, gained their name from their adoption of this novel custom.[5] Another line of similar influence is that of the Lingâyat worship in Southern India, which was the result of a reversion in the direction of phallic beliefs in opposition to official Brâhmanism. Thus the Ilgeru, a jungle tribe, tappers of the toddy-palm, in Dhârwâr, used to cremate their dead, but quite recently under Lingâyat influence have reverted to cremation: the Khatîk butchers when they become Lingâyats, bury, when Marhâtas following Hindu rules they burn their dead.[6] On the other hand, it is one of the first indications of a jungle tribe being adopted into the Hindu fold that they replace burial by cremation. The Komârpâiks, palm-tappers of Kanara, up to sixty or seventy years ago used to bury; now they cremate adults and bury children; and the Dhimâls, a menial race in Bengal, are rapidly replacing burial by cremation.[7]

Two lines of evidence tend to corroborate the conclusion that in India earth burial preceded cremation. One is, that now-a-days it is only the most backward of the jungle tribes, like the Irulas and Koravas of North Arcot,[8] who habitually resort to inhumation. It may also be assumed that the same rule prevailed in

372; Lubbock, *Prehistoric Times*,[2] 49 *seq.*; *Folk-lore*, iii, 246; vi, 15; Ralston, *Songs of the Russian People*, 324 *seq.*

[1] Hogarth, *Authority and Archæology, Sacred and Profane*, 248; Frazer, *Pausanias*, v, 553.

[2] Yule, *Marco Polo*, i, 187; ii, 96; Rein, *Japan*,[2] 433.

[3] *Rig Veda*, x, 15, 14; 18, 11; i, 174, 7; x, 16, 1; 15, 14; Dutt, *Ancient India*, i, 279

[4] Biddulph, *loc. cit.*, 113.

[5] Crooke, *loc. cit.*, ii, 391.

[6] *Bombay Gazetteer*, xxii, 109; xxiii, 172.

[7] *Ibid.*, xv (1), 292; Risley, *loc. cit.*, i, 228.

[8] Cox-Stuart, *North Arcot*, i, 247, 249.

Digitized by Google

early times among tribes in the lower stage of culture in Northern India, because there is a consistent folk tradition dating from very ancient times that the dead were not cremated in the great kingdom of Magadha, the modern Bihâr.[1]

Another line of evidence pointing in the same direction is the general habit which now prevails of burying, not cremating, people under taboo—young children, *puerperæ*, priests and holy men of various kinds. As to children, the general rule seems to be that if a child die within the first twelve days after birth, or before the naming rite, which is a form of tribal initiation, it is always buried: if it die between the twelfth day and the third year, or between the naming rite and the hair cutting, which is also a form of initiation, it is buried, or if cremation be resorted to, there is no regular funeral ceremony or the recitation of sacred verses. The question of age also regulates the period during which the relations are impure or under taboo. Thus, if a boy die before the naming rite and the completion of teething, the parents are impure for only three days, and other members of the family for one day. If the body be buried, the parents are taboo for three days, while the other members of the family can purify themselves by bathing. These are the rules in Western India,[2] and with slight modifications generally prevail.

Again, following the same rule of taboo, those tribes which habitually cremate the adult dead bury those who perish by violent or unexpected deaths, by small-pox, cholera, or leprosy, and women dying in childbirth. Thus, in Coimbatore, persons dying of epidemic disease are invariably buried, not burnt, and if possible by the edge of water. Music is essential to an ordinary cremation, but it is not allowed in the case of those dying in an epidemic, "because the Amman (divine mother) would be offended."[3] The Raikaris, a forest tribe in Thâna, bury anyone who dies of cholera, by drowning, or suddenly without any apparent cause, while those perishing from protracted disease are cremated.[4] The Varlis, another tribe of the same class, bury all corpses that have sores on them, and cremate the others.[5] The popular explanation of the habit of burying those who die from epidemic disease is that the illness is the result of a special visitation of the disease godling, and that the spirit of the deceased accordingly does not require the purifying influence of fire to enable it to join its sainted ancestress. But this covers only a portion of the cases in which we find a reversion to the primitive habit of inhumation, and it is perhaps preferable to regard these as cases in which conservatism in ritual appears specially in connection with taboo. The Gadariyas, shepherds in Upper India, are so particular in enforcing the rule, that if those dying in a state of taboo be cremated, they suppose that such a noisome steam rises from the pyre as to blind the mourners.[6]

And so with the aged and respected dead. The Gonds are supposed to cremate all old men: in practice, to avoid mistakes, they burn all who die above

[1] *North Indian Notes and Queries*, v, 186.
[2] *Bombay Gazetteer*, xviii (1), 562.
[3] Nicholson, *Coimbatore*, 50.
[4] *Bombay Gazetteer*, xiii (1), 176.
[5] *Ibid.*, xiii (1), 182.
[6] Crooke, *loc. cit.*, iii, 364.

Digitized by Google

the age of fifty.[1] The Billuvas, toddy-drawers of Kanara, usually bury the dead, but cremate their Gurikars or headmen.[2] The Thârus of the Lower Himalaya bury their leading men in the house, and the Kâdus, jungle folk in Mysore, cremate adults and bury children.[3] The same rule applies to most classes of Hindu religious mendicants, who are buried either in salt or in a crouching position. But, as will have been seen, there is no permanence of custom: sometimes burial, sometimes cremation is regarded as honorific, the more unusual method being adopted in the case of the tabooed or respected dead. Thus, the Mahâdeo Kolis of Thâna cremate people who die suddenly or after a lingering illness and bury the others.[4]

We have seen that unmarried persons are taboo, and usually buried, not cremated. Marriage is regarded as a form of initiation: hence unmarried people are taboo and their ghosts are considered to be specially malignant.[5] The Brâhmanical explanation of this, adopted by the Banjâras of Northern India, is that married people by walking round the sacred fire at their wedding are thus dedicated to Agni, the god of fire; and should remain his at death.[6] The explanation is as valueless as such explanations usually are.

One method of removing the taboo in the case of the unmarried dead deserves notice. In Malabar an unmarried woman cannot be cremated until the Tâli, or marriage string, is tied round the neck of the corpse while it lies on the funeral pyre by some relation. Later competent authorities are inclined to doubt that the disgusting rites on this occasion, described by Abbé Dubois, really prevail.[7] The natives of South Malabar certainly marry all dead girls to a young Brâhman or to a cocoa palm, and this custom of *post mortem* marriage is recorded in the Russian province of Podolia as well as in China.[8]

One of the leading motives which regulate death rites is the desire to propitiate the ghost, which becomes offended at any ill-treatment of the corpse. *Sit tibi terra levis* is a common form of early monumental inscription, and the head is often specially protected from the pressure of the earth because it is the seat of life.[9] Hence probably arises the practice of what may be called shelf or niche burial. Thus, the Jogers, a tribe of vagrants in Bijapur, bury their dead in a shelf hollowed out on one side of the grave.[10] In the burial of a Jangama Lingâyat priest at Sholapur, after the grave is dug, a second hole is excavated in the bottom and facing it, either East or North, a niche is dug with an arched top. The whole is covered with cow-dung or whitewash, and the dust of the holy man's

[1] *Central Provinces Gazetteer*, 278.
[2] Sturrock, *S. Kanara*, i, 173.
[3] Risley, *loc. cit.*, ii, 318; Rice, *Mysore*, i, 213.
[4] *Bombay Gazetteer*, xiii (1), 172.
[5] Frazer, *Pausanias*, v, 389; Crooke, *Popular Religion and Folk-lore of Northern India*, i, 261.
[6] *North Indian Notes and Queries*, v, 143.
[7] Dubois, *Hindu Manners* (edited by Beauchamp), p. 17 *seq.*; Logan, *Malabar*, i, 128.
[8] *Bombay Gazetteer*, xv (1), 196; Ralston, *loc. cit.*, 310 *seq.*; *Folk-lore*, ii, 247; Yule, *Marco Polo*, i, 234; Gray, *China*, i, 216 *seq.*
[9] Frazer, *Golden Bough*, i, 187 *seqq.*
[10] *Bombay Gazetteer*, xxiii, 196.

Digitized by Google

feet thrown into it. The corpse is seated in the niche dressed only in a loin-cloth, and in the hands of the dead man is placed the Lingam amulet which he wore in life. The grave is filled up to the level of the face of the corpse, and a piece of gold is laid on the mouth. Finally, the main grave is filled up with earth and stones, and a mound is raised over it.[1]

Here we have a very primitive form of burial, because we find it among the degraded Yeravas of Coorg, who bury their women in a sitting posture in a hole scooped out sideways from what should have been an ordinary grave, so that the earth overhead does not touch her body.[2] The custom among the Jugis of Bengal, who, like all the ascetic classes, retain many primitive practices, is similar.[3] The custom extends far beyond India. Thus, some of the Australian tribes bury their dead standing, and an empty space is left above the head so that nothing may touch it; others make a side chamber at the bottom of the pit into which the tightly corded corpse is thrust.[4] We have numerous instances of the same practice among the Indian tribes of North America, and Miss Kingsley and other travellers describe somewhat similar customs in Africa.[5]

In fact, the custom is a link between the ordinary grave interment, where the earth is piled immediately over the corpse, and the dome or vault burial adopted by more cultured races. Thus, in Africa, one of the centres of shelf or niche interment, the King of the Fiot is placed in a vault with goods and images representing the fetish gods and officers of the deceased monarch.[6] It also reminds us of some of the ancient forms of Dolmen or Kistvaen burial, as in what are known as Camere tombs in Italy.[7] Many of the Irish megalithic monuments have an outer and an inner chamber, on the analogy of the Antae and Cella of classic shrines the outer room being probably devoted to some form of culture of the dead, and we find the same form in the beehive tombs of Mycenæ, where the inner chamber was probably the original tomb, and the outer room a charnel house for the bones of less honoured members of the royal family.[8]

Another interesting point in connection with this form of interment is that it has been adopted as the normal rule among Muhammadans. Thus, in India, in what is known as the "simple" (*sâdi*) grave, there is a Lahd or niche made in the base of the grave, arched over so that the dead man may be able to sit up when visited and examined by the death angels, Munkar and Nakîr. In what is known as the *baghli* grave (*baghl* = the side or armpit) the niche is made in the side of the grave facing the Qiblah or holy city of Mecca. So in Turkestân the grave

[1] *Bombay Gazetteer*, xx, 84; xxiii, 237.

[2] Oppert, *Original Inhabitants of Bharatavarsa*, 207; quoting Richter, *Ethnographical Compendium of the Castes and Tribes of the Province of Coory*, 9 *seq.*

[3] Risley, *loc. cit.*, i, 359.

[4] *Journ. Anthrop. Inst.*, O.S., ii, 271; xiii, 170

[5] Yarrow, *loc. cit.*, 97, 98, 102; Miss Kingsley, *West African Studies*, 484 *seq.*; Featherman, *Nigritians*, 233, 345, 549.

[6] Featherman, *loc. cit.*, 444.

[7] *Journ. Anthrop. Inst.*, xxvi, 259.

[8] Borlase, *loc. cit.*, i, 135, 147; ii, 432; Frazer, *Pausanias*, iii, 126, 141.

Digitized by Google

consists of a deep ditch in one end of which an underground chamber has been hollowed out into which the corpse is shoved and the grave filled.[1] It is difficult to conjecture whence the early Mussulmâns derived the practice; they probably merely perpetrated a general custom of the pre-Islamitic paganism.

It will have been noticed that in this shelf burial the corpse is usually interred in a crouched or sitting position. This, too, is a very primitive mode of interment, of which India supplies many instances. We find it among the Irulas, a very degraded jungle tribe of the Nilagiris; the Devânga, weavers of North Arcot: the Lepchas of Assum: the scavenger tribes of the North-Western Provinces and Bombay: the Hatkars of Berâr: the Madigs, vagrants of Bijapur: the Mhârs, a race of degraded outcasts in Western India: the Gidbudki, beggars of Kanara: the Dhor, menials in Bombay, and many other depressed and vagrant tribes, among whom it is the normal form of interment.[2] Besides actual crouched burial there are many cases in which the body is carried to the grave in a sitting posture. Thus, the Bhâradis, dancers of Ahmadnagar, carry the corpse to the burial ground rolled up in a bag: the Bilejâdars, weavers of Dharwâr, remove the married dead in a seated posture in a cart:[3] many of the Banya and other mercantile castes of Northern India convey the corpse to the cremation ground in a sort of cage in which it is bunched up like a ball.

This custom of crouched burial is widespread. It is characteristic of the interments in the Neolithic Age, and is common in the burrows of Great Britain and other parts of Europe.[4] Evidence of it has been traced in the royal burials at Mycenæ,[5] as well as in ancient Chaldæa.[6] In some of the early Irish entombments the corpse was seated in the grave on a chair, and the dead were buried in a crouched posture both in ancient Spain and in Scandinavia.[7] The custom seems to have been general in ancient times in North America, and prevails among the ruder races of that continent to the present time.[8] We find it in Rotuma and New Georgia, in the Gilbert Islands, among the Botocudos of Brazil, the Peruvians, Andamanese, and Nicobarese, the Australians, Fijians, and the people of New Britain, and Sarawak.[9] At Accra, the corpse of the dead man is

[1] Schuyler, *Turkistan*, i, 151.

[2] Grigg, *Nilagiris*, 217; Cox-Stuart, *North Arcot*, i, 227; Risley, *loc. cit.*, ii, 10; *North Indian Notes and Queries*, i, 118; *Bombay Gazetteer*, xviii (1), 439; xxii, 216; xii, 62; xviii (1), 435; xxiii, 157; xii, 173; xviii (1), 478; xxiii, 137, 201.

[3] *Bombay Gazetteer*, xvii, 170; xxii, 164.

[4] Borlase, *loc. cit.*, i, 112; Nadaillac, *loc. cit.*, 351; *Journ. Anthrop. Inst.*, O.S., xxii, 6; viii, 378; vi, 282; xii, 194; iv, 378; xx, 12; v, 146; *Folk-lore*, iii, 244.

[5] Frazer, *Pausanias*, iii, 106, 126.

[6] Maspero, *Dawn of Civilization*, 686.

[7] Borlase, *loc. cit.*, iii, 800; *Journ. Anthrop. Inst.*, O.S., xvii, 128; Du Chaillu, *Viking Age*, i, 70, 73, 326.

[8] Bancroft, *Native Races*, i, 205, 248, 289, 357, 396, 420; ii, 612, 800; Yarrow, *loc. cit.*, 75, 99, 111.

[9] *Journ. Anthrop. Inst.*, O.S., xxvii, 464; xxvi, 403; xiii, 208; vii, 499; ii, 281; xiii, 153, 298; x, 145; xii, 141; x, 365; xv, 450; xxi, 353; Roth, *loc. cit.*, i, 143 *seq.*; Featherman, *Nigritians*, 128, 242, 713.

Digitized by Google

seated, his name is called, he is invited to eat and drink, and implored not to forsake his friends.[1] In East Africa to this day children are cremated in a sitting position.[2] There are even instances in comparatively recent times of a similar custom in England, and to this day the Patriarch of the Coptic Church is burned sitting.[3]

Passing on to India—it is interesting to find that this custom is again closely associated with taboo, and is specially prominent in the case of ascetics and holy men. In the monasteries of Spiti in the Lower Himalaya, the traveller is shown masonry pillars which contain the bodies of abbots entombed in a sitting position dressed in their full canonicals.[4] When a Guru, or religious teacher, of the Shenvi Brâhmans of Kanara dies, his corpse is seated in a chair and worshipped, and in his chair he is seated in the grave; while in Northern India ceremonies of a similar kind are practised in the case of holy men of the Dâdupanthi and Sannyâsi orders and many other classes of ascetics.[5]

The usual explanation of this custom of sitting or crouched burial is that it symbolises the prenatal posture in the womb. This, in some cases, perhaps explains the practice. In others it seems to be purely honorific—the chief is interred in the dignified position he adopted in life, the teacher in the attitude in which he addresses his pupils. Thus, among the Niam Niam and Wahuma of Western Africa, chiefs and men of rank are interred in a sitting position.[6] But in most cases it may merely be meant to suggest the posture in which the savage snatches uneasy sleep round the camp fire, or in his narrow cave or hut. He lives, in fact, in the grave as he lived on earth. And so in the passage graves of Scandinavia, the dead sit along the walls, young and old, men and women, the chin resting on both hands, and the knees drawn up, their favourite posture in life.[7]

With this mode of burial in some cases is connected the habit of binding up the corpse before interment. In Fiji this tying of the corpse is distinctly attributed to a desire to prevent the ghost from walking.[8] This feeling also accounts for the very common habit of mutilating dead enemies, and for the custom of burying the tabooed dead face downwards. The corpse is, thus, often bound up either with the intention of barring the return of the ghost, or to prevent it from being occupied by some evil spirit of the vampire type while on its way to the grave. In Turkestân, for instance, the corpse is tied round and round with a long bandage, and that of a Kimbondo chief is wrapped up in a hide.[9] We find the same custom

[1] Featherman, *loc. cit.*, 157, 713.
[2] *Journ. Anthrop. Inst.*, O.S., xxi, 368.
[3] 2nd Series, *Notes and Queries*, ix, 513; 3rd Series, i, 38; iii, 264; 7th Series, viii, 158.
[4] *Settlement Report*, 204.
[5] *Bombay Gazetteer*, xv (1), 149 *seq.*; xx, 184; xii, 62; xxiii, 237; *Punjâb Notes and Queries*, ii, 20; iv, 51; Risley, *loc. cit.*, ii, 342.
[6] Featherman, *loc. cit.*, 24, 116.
[7] Du Chaillu, *loc. cit.*, i, 73; compare Bancroft, *loc. cit.*, i, 205; Yarrow, *loc. cit.*, 146.
[8] *Journ. Anthrop. Inst.*, O.S., x, 145.
[9] Schuyler, *loc. cit.*, i, 150; Featherman *oc. cit.*, 470.

Digitized by Google

among many tribes of American Indians, among Australians, and in Hispaniola, while in Mashonaland the limbs of the male dead are tied up, toes and fingers each in a separate piece of cloth before burial, while a woman is bound up in a hide.[1] In other cases we find an advance of custom, as among the Aleuts and Peruvians, in Australia and ancient Egypt, where the corpse or mummy is enveloped in ornamental netting.[2]

In India similar customs are common. Thus, the Havig Brâhmans of Kanara tie the corpse tightly to the bier with a coir rope: the Deshasth Brâhmans of Bijapur, obviously in a spirit of religious conservatism, which shows the antiquity of the practice, require that this rope should be cut with a stone, the apparent intention being to give the ghost release when the funeral reaches the place of cremation: the degraded Mhârs of Khândesh tie the arms over the breast with a silver wire: the Burmese tie the great toes of the corpse, apparently to prevent the ghost from walking, and swathe the body in an ample shroud: the Mangars, a menial tribe in Bengal, tie it with three pieces of rope to a pole and thus convey it to the grave: some of the tribes in Burmah combine this custom with the common rite of hair sacrifice at death, and use the hair of the dead man's son or daughter to tie his corpse: if this hair be not forthcoming, strips of cotton cloth are used.[3]

Another remarkable custom is that of disinterring the dead after decomposition has wholly or partly ceased, cleaning his bones and either wearing them as relics or consigning them to an ossuary. This practice is common in India in the case of persons dying in a state of taboo, in other words from epidemic disease. The corpses of such people are constantly disinterred and reburned when the plague is over. Thus, the Kâthkaris, a jungle tribe in Kanara, bury those dying of cholera, exhume them when the epidemic has ceased, and burn the bones.[4] A more remarkable development of the same custom is found among the Eastern Kullens of Madras, who, sometimes after a corpse has been buried, bring a bier to the grave. The brother of the widow of the deceased digs up the body, removes the skull, which he washes and smears with sandalwood powder and spices. This man, whose relation to the deceased is an indication of the matriarchate, is seated on the bier, and holding the skull in his hands is carried to a shed erected in front of the dead man's house. The skull is set down and all the relations mourn over it till the next day at noon. The following twenty-four hours are given over to drunken revelry. Then the brother-in-law is again seated on the bier, skull in hand, and is carried back to the grave. The son or heir of the deceased then

[1] Featherman, *loc. cit.*, 21 ; *Journ. Anthrop. Inst.*, O.S., xiii, 190 ; xiv, 363 ; xxiv, 170 ; xvi, 277 ; xiii, 418 ; xix, 402 ; Bent, *Ruined Cities*, 264 ; Bancroft, *loc. cit.*, i, 245 ; Shea-Troyer, *Dabistan*, i, 141. For rites originating from burial in hides, see Lefébvre, *Proc. Society of Biblical Archæology*, xv, 433 *seqq.*

[2] *Journ. Anthrop. Inst.*, O.S., x, 365.

[3] *Bombay Gazetteer*, xv (1), 127 ; xxiii, 88 ; xii, 118 ; *Burmah Gazetteer*, i, 385, 386 ; Risley, *loc. cit.*, ii, 75.

[4] *Bombay Gazetteer*, xiii (1), 163 ; xiv, 264.

Digitized by Google

burns the skull and breaks an earthen pot, apparently with the object of releasing the ghost. This custom prevails also among the Pullers, one of the most primitive races in that part of the country.[1]

Among other tribes which practise inhumation similar customs are found. The Agariya of Central India, a race of iron-smelters in the jungle, dig up their dead when the bones are dry and send the skull and chief parts to the Ganges.[2] The Bhotiyas who die except in the month of Kârtik, or December, are disinterred in the following Kârtik and burnt, as in Russia the bodies of unknown or uncared for dead are buried hastily in winter, disinterred in the spring and reburied.[3] Similar practices are recorded among the Tlinkeets of Western America, and the Latukas of East Africa.[4]

It is needless to say that the custom of disinterring the corpse and cleaning the bones is common to many savage races. The practice prevails in Motu, in Goazacoalco, in Melanesia, Sarawak, the Loochoo Islands, Torres Straits, Ashanti, and many other places.[5] The custom of maintaining tribal ossuaries is equally common.[6] The Todas have what are called "the green" and "the dry" funeral, the former carried out immediately after death, the latter, which is now fixed at about a twelvemonth after death, when the obsequial rites of all who have died in the interval are performed.[7] It may be suspected that the Todas, who now cremate, once buried their dead, and that "the dry" funeral marked the time for the removal of the bones to the tribal ossuary. The same custom also possibly accounts for "the small" and "great" festival of the dead among the Azteks.[8]

In fact, the custom may have suggested the special death rites, which, as among the Hindus, are performed on the anniversary of the death. They have invented the fiction that during this period the ghost wanders, and will continue to wander unless by the pious care of his relations he is provided with a new and spiritual body. The period of a year probably marks the period at which it was supposed that decomposition was complete. The Indians of North America, for instance, make gifts at the grave so long as it is supposed that there is any part of the perishable matter remaining, and the Dakotas inter the bones in about a year after they have been placed on the platform.[9] The soul, it was believed, could not rest in peace so long as it was surrounded by the products of corruption. As the

[1] *Folk-lore*, v, 36. For other cases in which the skull represents the deceased, see Hartland, *Legend of Perseus*, ii, 307 *seq.*

[2] Dalton, *loc. cit.*, 323; Risley, *loc. cit.*, i, 4.

[3] Traill, *Statistical Report on the Bhotiya Mahâls*, 85 *seq.*; Ralston, *Songs of the Russian People*, 333.

[4] Bancroft, *loc. cit.*, i, 113; Featherman, *Nigritians*, 81.

[5] *Journ. Anthrop. Inst.*, O.S., vii, 485; x, 300; xxiv, 58; xix, 416, 421, 427, 436; xiv, 231; xxv, 357; xv, 397; xiii, 13. Gray, *China*, ii, 304; and see Hartland, *Legend of Perseus*, ii, 327.

[6] Bancroft, *loc. cit.*, iv, 776; Burckhardt, *Syria*, 564; Featherman, *Nigritians*, 153; and see Hartland, *loc. cit.*, ii, 332.

[7] Marshall, *A Phrenologist among the Todas*, 170 *seq.*; Grigg, *Nilagiris*, 197.

[8] Bancroft, *loc. cit.*, ii, 618.

[9] Schoolcraft in Drake, *Indian Tribes of the United States*, i, 216, 234.

Digitized by Google

Dayaks of Borneo say, "All unknown and unexpiated sin is wiped away by the burning of the bones, and then the spirit is as clean as though washed in gold."[1] The annual death rite of the Hindus may then be a survival of practices antecedent to the adoption of cremation.

But we may go even further and conjecture that this habit of disinterring the bones is a survival of a more primitive and more disgusting rite. In its crudest form we find it among the tribes of the Amazon, who, according to Dr. Wallace, about a month after the funeral, "disinter the corpse, which is then much decomposed, and put it in a great pan or oven over the fire till all the volatile parts are driven off with a most horrible odour, leaving only a black carbonaceous mass, which is pounded into a fine powder, and mixed in several large *couchés* (vats made of hollowed trees) of a fermented drink *caxiri:* this is drunk by the assembled company till all is finished: they believe that the virtues of the deceased will be transmitted to the drinkers."[2] The practice then in its crudest form carries us back to the rite of sacramental cannibalism.

We meet many traces of this practice of disinterring the bones in early European interments. In some of the English long barrows the bones appear to have been flung in pell-mell. The space is often too small to hold a complete corpse, so that before inhumation the flesh must have been separated from the bones, or the bodies were disinterred and reburied when decomposition had ceased. Instances of this are found in connection with many of the megalithic monuments.[3]

In modern Hinduism of the higher type the rite survives in the Asthi-Sancaya, or "bone collecting ceremony," when a day or two after cremation the bones and ashes are swept up and buried there and then, or reserved for consignment to some holy river.

Lastly, in dealing with these survivals of early burial rites in India we come to the custom of jar and urn burial. I quote in the appendix to this paper a valuable note on the subject, hitherto, I believe, unpublished, by the late eminent antiquary, Bishop Caldwell.

Practically the only instances of this form of interment come from Southern India. In Salem, "the large urns invariably contain human bones and small vessels, and very often some urn implements and ornaments. I do not think that any of them are large enough to contain the body of a full-grown man, though placed in a sitting posture, with the legs and thighs drawn up, as is sometimes found in the tumuli of Europe:" in fact the position of the bones in layers seems to indicate that the body must have been either cut up or partially burnt before interment.[4] In Tinnevelly the ancient race used to bury their dead in earthen

[1] Roth, *loc. cit.*, i, 163.

[2] Wallace, *Narrative of Travels on the Amazon*, 346: with other references in Hartland, *loc cit.*, ii, 286 *seq.*

[3] Nadaillac, *loc. cit.*, 214, 346; Borlase, *loc. cit.*, i, 188; ii, 453, 456.

[4] Le Fanu, *Salem*, ii, 284; Nicholson, *Coimbatore*, 85.

Digitized by Google

urns, varying in size from a foot to six feet in height. In them skulls and bones are often found in a complete state of preservation, the body being placed in the urn in a sitting posture, or, when the urns are small, still more forcibly fitted to its size.[1] In Malabar, again, we find curious burial caves, probably of the same age as the megalithic monuments: some are of a later type, containing large sepulchral urns.[2] In Nellore, in the laterite deposit, were found several coffins, apparently made of burnt clay, embedded in quartz. Some contained more than one body, spear-heads, and other implements.[3] Some of the urns in Malabar have a hole in the bottom, which, it has been supposed, may be connected with the cult of the earth goddess and the return of the person buried to the bosom of mother earth:[4] more probably they were intended merely as outlets for the products of decomposition on the principle already mentioned that it was desirable to purify the bones so as to provide a happy home for the ghost. In Mysore, jars of the same kind have been found in the Kistvaens, and in South Arcot there are cases of pot burial in stone chambers, the jars containing bones and fragments of iron.[5] In Malabar, again, jars and fragments of iron have been found in cromlechs.[6] In the Nilagiris, funeral jars have been found with lids curiously shaped in the form of animals, such as birds, pigs, deer, dogs, horses, buffaloes, trees, men, and women, while in the barrows bones are found in a bronze vessel enclosed in an earthen jar.[7] The jar in Malabar is often buried with its lid on a level with the surface of the soil, and the whole covered with a massive slab of stone.[8]

Jar burial is thus a well-established form of interment in Southern India. From the articles discovered with the bones they would, in most cases, seem to be not earlier than the discovery of iron. How long ago that may be or to what race the custom may be attributed, it is at present difficult to say. It seems to have gone on continuously up to quite recent times. Probably in some cases the corpse was cut up or dislocated and thus forced into the jar: in other cases cremation, either complete or partial, preceded the placing of the bones in the jar: or possibly the jar may have been used occasionally for bones disinterred some time after inhumation.

This early custom of urn burial has left some survivals in the current Hindu death ritual. In the first place, the potter as the maker of the shrine or spirit house which contains the ghost, is subject to many taboos, and among certain of the lower castes discharges priestly functions. The household water pots are, again, subject to a rigid taboo. After a death they are all broken or replaced, because the ghost may have found its natural home in one of them, and all must be broken that the restless spirit may be released. So when the mourner marches round the pyre he breaks with the life-stone, which is supposed to represent the

[1] Stuart, *Tinnevelly*, 67.
[2] Logan, *Malabar*, i, 180.
[3] Boswell, *Nellore*, 689.
[4] Logan, *loc. cit.*, i, 181.
[5] Rice, *Mysore*[2], i, 507; Garstin, *South Arcot*, 330 *seq.*
[6] Logan, *loc. cit.*, i, 180.
Grigg, *Nilagiris*, 233, 235 *seq.*
Journ. Anthrop. Inst., xi, 416.

Digitized by Google

dead, a water pot with the same intention, and a water jar is hung on the sacred Pîpal tree for some time after death to provide a home and refreshment for the homeless spirit. The line of pots piled during the marriage rite is supposed to be the home of the guardian deities who bless the union, and a Kalasa, or sacred jar, is found at every rural shrine and on the spires of Hindu temples, because it is distinctively the abode of the deity. This leads to a great chapter in folklore, the binding of a god in a jar, which I have discussed elsewhere.[1]

Though the habit of actual jar burial has practically disappeared in the northern part of the Continent, it has left many traces of its existence. All over Northern India dead babies, because they are specially taboo, are put away in jars. In the Panjâb, among the tribes which practice infanticide, the body of the child is placed in a water-pot and buried. The same vessel is used as the place of deposit for the umbilical cord, to which many curious beliefs attach, all based on the belief that it acts as the Life Index, or refuge for the separable soul of the child. More important is the use of the jar for holding the bones and ashes collected from the cremation ground. Here it directly represents the jar used in earlier times for purposes of inhumation, and we can see the exact stages of the evolution of custom in practice at Siam, where the corpse of a king or queen is placed, dressed and ornamented, in a golden jar, and cremated some four or five months afterwards.[2]

In the disposal of the bones and ashes many variances of practice present themselves. Some, and in particular those tribes which follow most closely the primitive usage, bury the jar in the place where the corpse was cremated, the cremation being here an obvious supplement to the more early use. Others combine it with water burial and bar the return of the ghost by sinking the bone jar in the nearest running water, or reserve it for removal to the Ganges or some other sacred stream. Meanwhile, and during the journey, the jar is hung on a tree, so that the ghost, if so disposed, may revisit its bones, for all ghosts are subject to a rigid taboo, not to tread upon the earth. Others, like the Gâros of Assam, place the ashes in a jar and enclose it with a bamboo fence near the village, so that the ghost may abide with them as some North American tribes and savages in many parts of the world enclose the grave with a pen of sticks and logs to prevent intrusion on the home of the dead.[3] Some, like the Khasiyas, on a special day selected by the diviner, remove this jar to the tribal burial ground, where the dead man rejoins his relations; or, like the Orâons, hang the bone jar on a pole outside the house of the deceased, and in the next December or January bury it near a river or tank, covering the remains with a massive stone.[4] Here, too, the delay in disposing of the bones may be a survival of customs connected with the earlier rite of inhumation. Hence, also, the jar is naturally a sacred object, and in

[1] *Folk-lore*, viii, 325 *seqq.*

[2] Bowring, *Siam*, ii, 419.

[3] Hunter, *Statistical Account of Assam*, ii, 354; Dalton, *loc. cit.*, 56; Yarrow, *loc. cit.*, 79, 80, 141.

[4] Risley, *loc. cit.*, ii, 174 *seq.*

Digitized by Google

Bihâr to strike one with a jar, or even to threaten to do so, is the most extreme form of insult.[1]

But there are survivals of even ghastlier customs in connection with the form of interment. Many of the primitive burials, as we have seen, supply evidence that the corpse, before being deposited in the jar, was dismembered, because the mouth of the vessel was too narrow to admit it. The Dayaks at the present day sometimes evade this difficulty by cutting the jar in two, through the middle, in order to permit the entry of the body, the upper part serving as a lid; while in ancient Chaldæa the clay must have been modelled over the corpse, or the neck subsequently added to the jar.[1]

In the light of facts such as these, it is significant that popular rumour credits the Doms, the lowest class of vagrants and scavengers in Upper India, with the habit of dismembering the corpses of their dead at night and placing the fragments in jars, which they sink in some stream or reservoir.[2] Mr. Risley is inclined to doubt the truth of this story, and suggests that it was based on the common prohibition against these outcasts burying their dead by daylight. But the tradition may not be so improbable as it seems, and it occurs just among the very tribe where we might have expected to meet with a survival of practices such as this.

I have thus sketched some of the early methods of disposal of the dead in India, of which survivals more or less obvious may be traced in the current usages of the present day. But I have been able to touch only the fringe of a subject in which the evidence is very voluminous and intricate. I have perhaps said enough to show that in any discussion of the evolution of the methods for the disposal of the dead the prehistoric and contemporary evidence from the Indian Peninsula and its border lands cannot safely be ignored.

[1] *Journ. Anthrop. Soc., Bombay*, iii, 365.
[2] Roth, *loc. cit.*, i, 152; Yarrow, *loc. cit.*, 137; Maspero, *loc. cit.*, 684
[3] Risley, *loc. cit.*, i, 248; Crooke, *loc. cit.*, ii, 325; compare Borlase, *loc. cit.*, ii, 456.

Digitized by Google

APPENDIX.

SEPULCHRAL URNS IN SOUTHERN INDIA.

The following note by the late Dr. Caldwell, Bishop of Tinnevelly, and author of the *Grammar of the Dravidian Languages*, has been kindly placed at the disposal of the writer of this paper by Mrs. Athol Macgregor and deserves reproduction.

"I am anxious to obtain some information as to the extent of the area within which sepulchral urns, like those to which I am about to refer, are found.

"The urns I refer to are large earthenware jars, containing fragments of human bones, generally in a very decayed state. They are of various sizes, corresponding with the age of the person whose remains were to be disposed of. The largest I have found was 11 feet in circumference, and the smallest have been between 4 feet and 5 feet. The shape varies a little within certain limits, so that I have not found any two perfectly alike: but the type generally adhered to is that of the large earthen jars (in Tamil *Kûnai*) with which the people in this neighbourhood draw water from wells for their cultivation. The urn is without handles, feet, rim, or cover. It swells out towards the middle and terminates in a point, so that it is only when it is surrounded with earth that it keeps an upright position. The urns do much credit to the workmanship of the people by whom they were made, being made of better tempered clay, better burnt and much stronger than any of the pottery made in these times in this part of India. They would contain a human body easily enough in a doubled-up position, if it could be got inside; but the mouth is generally so narrow that it would admit only the skull; and one is tempted to conjecture that the body must have been cut into pieces before it was put into the urn, or that the bones must have been collected and put in after the body had decayed. Generally decay is found to have advanced so far that these theories can neither be verified nor disproved. Fragments only of the harder bones remain, and the urn seems to contain little more than a mass of earth. In one instance I found the bones partially petrified and therefore almost perfect, though they had fallen asunder, but this was the large 11 feet urn referred to above, discovered at Korkoi; so that in this instance it was conceivable that the body had been placed in it entire. At Ilanji, near Courtallum, on opening an urn some traces of the shape of a skeleton were discovered. The skull was found resting on the sternum, and on each side of the sternum was a tibia. It appeared, therefore, as if the body had been doubled up and forced in head foremost, though it was not clear how the shoulders could have got in. The bones were of the consistence of ochre, and crumbled to pieces when they were taken out. Nothing could be preserved but a piece of the skull and the teeth, which were those of an adult. Dr. Fry, Surgeon to the Resident of Travancore, who was present at the find, pointed out that the molars had been worn down by eating grain, and that the edges of the front teeth had also been worn down by biting some kind of parched

Digitized by Google

pulse. Afterwards, on examining the mouths of some natives, I found their front teeth worn down a little in the same manner, and, as they admitted, from the same cause. I have not noticed any distinct trace of the bones in these urns having been calcined.

"In addition to human bones, a few small earthen vessels are found in most of the jars. Sometimes such vessels are arranged outside, instead of being placed inside. These vessels are of various shapes, all more or less elegant, and all appear to have been highly polished. At first I supposed they had been glazed, but I have been informed by Dr. Hunter, late of the Madras School of Arts, that what I noticed was a polish, not a true glaze. Whatever it be, I have not noticed anything of the kind in the native pottery of these parts and these times. In some cases the polish or glaze is black, and the decay of these blackened vessels seems to have given rise to the supposition that the bones had sometimes been calcined.

"On a plate published in the *Indian Antiquary* for October, 1877, are sketches of five of these little vessels. When these have been shown to natives, they say that No. 4 seems to have been an oil-vessel, and No. 5 a spittoon. The use of No. 2, the vessel with the lid, is unknown. In these times such vessels would be made of bell-metal, not of pottery. We may conclude that the object in view in placing these vessels in the urn was that the ghost of the departed might be supplied with the ghosts of suitable vessels for eating and drinking out of in the other world. Small stones, about the size of a cocoa-nut, are generally found heaped up round the mouth of the urn, and the discovery of such stones ranged in a circle, corresponding to the circular mouth of the urn, will be found to be a reason for suspecting the existenee of an urn underneath.

"The natives of these times know nothing whatever of the people by whom this singular mode of interment was practised, nor of the time when they lived. They do not identify them with the Samanas, that is to say, the Jainas and the Buddhists lumped together, about whom tolerably distinct traditions survive, nor does there appear to be anything in or about the jars distinctively Jaina or Buddhistic. There is a myth current among the natives, it is true, respecting the people who were buried in these jars, but this myth seems to be merely a confession of their ignorance. They say that in the Treta Yuga, that is about a million of years ago, people used to live to a great age, and that however old they were they did not die, but the older they grew the smaller they became. They got so small at length that to keep them out of the way of harm it was necessary to place them in the little triangular niche in the wall of a native house, in which the lamp is kept. At length when the younger people could no longer bear the trouble of looking after their dwarf ancestors, they placed them in earthen jars, put with them in the jars a number of little vessels containing rice, water, oil, etc., and buried them near the village.

"The name by which these urns are called in the Tamil country does not throw much light on their origin. This name assumes three forms. In the Tamil

Digitized by Google

Dictionary it is *madamadakkattâli.* A more common form of this is *maddama-dakkan-dâli,* the meaning of both which forms is the same, viz., 'the *tâli* or large jar, which boils over.' The meaning attributed to this by some natives is rather far-fetched, viz., that the little people who were placed in them used sometimes to come out of the jars and sit about, as if they had boiled over out of them. The form of this word in use among the common people seems capable of a more rational interpretation. This is *madamattan-dâli, or* more properly *madonmattan-dâli. Madonmatta* (Sansk.) (? *madvanmata*) means 'insane'; but it is sometimes used in Tamil to mean 'very large,' as in the Tamil version of the Panchatantra where it is used to denote a very large jungle. The great size of the urn being its principal characteristic, it would seem that the name in use amongst the common people is, after all, better warranted than that which is used by those who are regarded as correct speakers.

"Who the people were who buried their dead in these urns is a problem yet unsolved. The only points that can be regarded as certain are those which have been ascertained by the internal evidence of the urns and their contents themselves. From this it is clear that the people buried in them were not pygmies, but of the same size as people of the present time. How they were put in may be mysterious, but there is no doubt about the size of their bones. The skulls were similar to those of the present time. The teeth also were worn down like those of the existing race of natives, by eating grain. In a jar opened by Dr. Jagor of Berlin, a head of millet was found. The grain had disappeared, but the husks remained. The unknown people must have lived in villages, the jars being found, not one here and another there, but arranged side by side in considerable numbers, as would naturally be done in a burial-ground. They were also a comparatively civilised people, as is evident from the excellence of their pottery, and the traces of iron implements or weapons which have sometimes been found in the jars. The conclusion from all this which seems most probable to me is that they were the ancestors of the people now living in the same neighbourhood. If this were the true explanation, it is singular that no relic, trace or tradition of such a mode of sepulture has survived to the present day. And yet, if we were to adopt the supposition that they were an alien race, it would be still more difficult to conjecture who they were, where they came from, and why they disappeared.

"I have myself seen those urns both in the Tinnevelly and Madura districts and in northern and southern Travancore—that is, on both sides of the Southern Ghâts, and I am anxious to ascertain in what other districts of India they are found. If the area within which they are found can be accurately traced some light may thereby be thrown on their history."

DISCUSSION.

Mr. W. GOWLAND said he had hoped to find in the Indian burial customs, which had been so ably dealt with by Mr. Crooke, some parallels with those practised in

Digitized by Google

Japan and Korea in early times. They were not altogether absent, but were confined solely to Buddhist times, which, in Japan, only dated from the sixth century of our era. The exposure of the dead in waste places to be devoured by beasts of prey, or to be destroyed by the action of the elements, as mentioned by the author, is certainly recorded in the traditions of the Japanese as being the earliest practice of the race, but how far these records are trustworthy on this point it is impossible to say, and we have no proofs, nor can we have any, that such a custom was actually followed.

The first mode of burial, of which we have any evidence, is that which was practised by them in those remote times when they first migrated from the mainland of Asia, viz., interment in low mounds or burrows. In these mounds stone ornaments are found, but the weapons, swords, halberds, and arrow heads are of bronze. Somewhat later in time, burial in dolmens, or large megalithic chambers covered by mounds, was introduced. In these the characteristic weapon was a formidable iron sword. These dolmens, however, have nothing in common with those of India. As regards the methods, mentioned by the author, in which the object was to preserve the body, he would point out that mummification was unknown in Japan, but, in very early times, vermilion was frequently placed in the sarcophagus with the body. He had found this substance in several sarcophagi, and in one large tumulus of a forgotten emperor or prince, which had been rifled, a considerable quantity was disseminated through the earth where the interment had taken place. It was generally stated by Japanese archæologists that the vermilion was used in order to preserve the corpse from decay. He did not think, however, that it could have this effect, but that there was some other reason for its use which was not obvious. He might mention incidentally that the custom of embalming is practised by the Chinese at the present day, in the cases of persons who had died in a distant country. The body was then embalmed in order that it might be transported to the native province of the deceased for interment there.

As regards inhumation, this mode of burial alone was practised by the Japanese in early times. Cremation was unknown until it was introduced with Buddhism, and it was not until about the seventh century, when that religion had been established in the country, that it seems to have come into use.

The first of the imperial line to be cremated is said to have been the Empress Jito (A.D. 702). There is some doubt about this, but the body of the Emperor Junna, who died in A.D. 842, was undoubtedly cremated. In these early cremations of important persons, it is important to note that the body was not burnt near the burial mound. Thus in the case of the Emperor Junna, the cremation took place about three miles from the tumulus proper; and in all cases two mounds commemorated the death, one being erected on the actual spot where the cremation was carried out, and the other where the urn containing the ashes was buried.

Inhumation was not given up but still continued to exist side by side with cremation, especially in burials of followers of the Shinto cult, and both are practised at the present day.

No traces of the custom of crouched burial in early times have been found in Japan, but after the introduction of cremation, the bodies of the dead were usually

Digitized by Google

placed in a squatting position in the wooden coffer or tub in which they were placed on the funeral pile.

Burial in jars, mentioned by the author as confined to Southern India, was occasionally practised in Japan, but only during the last two or three centuries. In one example he had found, when excavating for the foundation of a building in extending the mint in Ôsaka, the body, which was that of a priest, had been interred in a large earthenware jar, the top of which was closed by a slab of stone bearing the date of the interment. The size of the jar and the width of its mouth were amply sufficient to admit the body without mutilation.

Finally, it is noteworthy, from what has already been said, that the only ancient burial custom which Japan owes to India was cremation.

Mr. W. L. H. DUCKWORTH thought that one effect of Mr. Crooke's researches would be to diminish the value to be attached to the consideration of identity in the method of disposal of the dead, as evidence of racial identity. In the case of the so-called Mediterranean Race in particular, a good deal of stress has been laid on this criterion by Sergi and others.

Digitized by Google

SEQUENCES IN PREHISTORIC REMAINS.

By Professor W. M. Flinders Petrie, D.C.L., LL.D.

[with plates xxxi to xxxiii.]

The conveniently vague term, "prehistoric," has been generally thought to excuse our ignorance, and to render further inquiry needless because it would be inconclusive. To attain to a broad division into widely distinct periods and styles, such as palæolithic and neolithic, was perhaps a tolerably safe venture; but the utmost that has been yet attempted is a division into a few well-marked varieties, as Mousterien, Acheullien, etc., or Mykenæan, Dipylon, Hallstattian, etc., for later ages. It has been, perhaps, the result of careless and incomplete observation and registration of discoveries, that the habit has arisen of defining only large periods without subdivisions, and describing a period by the name of a locality, which conveys no idea of relation to other periods.

But it may be said that in dealing with ages before any written record of years no reference to time or dates is possible. In the narrowest sense this may be true. Yet the main value of dates is to show the sequence of events; and it would matter very little if the time from Augustus to Constantine had occupied six centuries instead of three, or if Alexander had lived only two centuries before Augustus. The order of events and the relation of one country to another is the main essential of history. Indeed, the tacit commonsense of historians agrees in treating the periods of great activity and production more fully than the arid ages of barbarism, and so substituting practically a scale of activity as the standard rather than a a scale of years.

It would be, therefore, no fallacy to portion out the past by the ratio of events rather than by the seasons; and to measure history by the stages of thought and action of man rather than by inanimate celestial motions. In this truest sense, then, we may have a possibility of reducing the prehistoric ages to a historical sequence, and defining them as readily as historic times. If some scale and ratio of human activities can be adopted, we may measure the past by means of it as definitely as we do by years B.C.

Supposing our information were complete, it is clear that we might, for instance, assign one degree in an arbitrary scale for every hundred objects of man's past that have survived to our time, and so obtain a reasonable series of "sequence dates"—as we may call them—for any period hitherto unmeasured. Such sequence dates would have varying relation to a scale of years in different parts of the scale, but would be, at least, a reasonable system of denoting the past, which would give that power of exact expression in commonly understood terms, which is

Digitized by Google

the necessary basis of any scientific treatment. The sequence dates of one country would have to be correlated to those of another country by discoveries of connections; but it would at least be a great gain to be able to express such a relation in a simple system of dating instead of some elaborate definition of a period named from one place being equivalent to the earlier or later part of a period named from some other.

So far we have only been looking at the desirable, without any statement of the practical; and sequence dates in prehistory may seem to be merely a "pious wish." Yet this abstract view of the matter has arisen from a very practical treatment of a large mass of material, out of which it has grown.

The most practical scale of sequence dates in Egypt, and perhaps in most other prehistoric civilisations, is the proportion of burials. The number of burials in each century will, of course, vary with the population; yet so does the importance of a country vary, and also our interest in it, to some extent. Nothing can be so readily ascertained as the proportions of burials if our researches are fairly spread, and if we find each cemetery to be largely overlapping others in relative age. For the period covered by a series of overlapping cemeteries the number of tombs may be taken as a most rational basis of sequence dates. Thus each unit of dating represents an equal number of persons above a certain low standard of wealth and culture. If, then, we could treat a large number of tombs—a thousand or more—which had no blank periods between them, and arrange them in their original order, we should have a rational basis for sequence dates; they might be divided into units of twenty tombs, for instance, and so broken up into fifty equal divisions; then any fresh tomb like some other in the scale could be simply and exactly defined as being of some sequence date, such as 23 or 38, as the case might be.

Further, every product could be dated in its relation to others, by saying that it began in, say, 18 S.D. and went out in 25 S.D. This would be just as valuable for a relative history of a civilisation as being able to write 5400 to 4800 B.C. for the age of some weapon or ornament. This result is what we have actually attained from such an amount of material as I have suggested above; and this system is from no abstract view, but has been really worked out. I now turn to the methods for extracting such results.

The first step is to form a *corpus* of drawings, each class of objects by themselves. For practical purposes it is well to work only from pottery to begin with; for it is less likely to be intentionally copied from earlier examples than work which is in more valuable material, and it is much less likely to be handed down from generation to generation than are the weapons of metal or carving in hard stone. In countries where pottery is insufficient, in variety or quantity, then other objects must be taken into consideration. It seems best in such a *corpus* to denote each class of pottery or objects by a letter (an initial letter of the class, if possible); and then all the forms by numbers added to that letter, as H 16 for the hanging stone vase No. 16, D 73 for the decorated pottery No. 73.

Digitized by Google

It is preferable to spread all the types over not more than 99 numbers in each class so as to avoid three figures; where there is much difference between types one or more numbers may be left blank for marking later discoveries of intermediate forms; where there are many subvarieties of a type letters may be added, as P 28a, P 28b, P 28c; thus if the type cannot be exactly distinguished, P 28 alone can be used for it. The *corpus* of prehistoric Egyptian pottery contains 917 forms.

Having, then, a full *corpus*, numbered in a systematic order, the contents of every grave should be registered in this notation. And then a card catalogue of graves should be made, each grave-group being written on a narrow slip ¼ inch wide. Practically the slips are best ruled in columns for different classes of pottery; each column wide enough to take in the number of types in any one grave. Actually the slips are 7 inches long, ruled in ten columns, for the prehistoric Egyptian. About 900 slips have been used together, representing the best graves selected from among over 4,000.

The next work is to place these as far as possible in the original order of the graves. For this there are five methods, based on the following considerations:—

1st. Actual superposition of graves or burials; but rarely found.

2nd. Series of development or degradation of form; very valuable if unimpeachable.

3rd. Statistical grouping by proportionate resemblance; the basis for classifying large groups.

4th. Grouping of similar types, and judgment by style; giving a more detailed arrangement of the result of the 3rd method.

5th. Minimum dispersion of each type, concentrating the extreme examples.

We will now illustrate these methods as applied to usual prehistoric objects.

1st. Later interments in tumuli will be invaluable for proving the relative order of age. The superposition in caves and in lake deposits is equally valuable; and the common consent in the sequence of stone, bronze, and iron may render the deposits of those successive ages equivalent to local superposition. This evidence gives a basis of broad divisions, which serve to prove the order of sequence from early to late, and prevent our mistaking it for late to early. As we shall see, it is starting from such broad divisions that we refine to lesser periods.

2nd. A series of changes of gradual growth or decay in form and style of a single type, where they are all of one locality and unquestionable in their connection, is of the highest value. It enables a long period to be ranged in approximate order, and serves as a scale for noting the rise or disappearance of other types. Thus contemporary graves, which may not contain this fluctuating type, can be classified into the series, and so take their true place. When a series of one type is arranged, and all the slips containing it are placed in order, then when a fresh slip is to be placed in the series each type on it is looked for in the series, and the first and last example noted. (This is conveniently done by laying

Digitized by Google

a pen nib pointing forward from the first example, and another backward from the last.) When each type on the card thus has its beginning and end in the series marked, it is easy to see that the card ought to be placed after all the beginnings and before all the endings of the types. Often it does not so fall, and we find that the range of one type must be extended at one end or other so as to include the new card in the series. Thus new material is built into a series already marked out by the development of some one type.

3rd. A large group of graves may not contain any already datable material, but may fall between two more definite classes. Such in Egypt are some hundreds of graves which are later than the cups with white line decoration and earlier than the series of wavy-handled jars. The cards of these graves are then to be marked with the proportion of types of pottery that they have in common with the class best-known at either the beginning or the end of the series, those with types most like those of a terminal class coming naturally nearest to that class. This statistical sorting by resemblance to some definite class is the only way to break up a large indistinct mass. Thus graves of the early iron age should be sorted according to their proportion of objects in common with late bronze age graves.

4th. When a general statistical sorting has thus broken up a mass into vague stages, the next step is to refine this by grouping together similar types that come near each other, and so improve the order by more individual evidence. Thus, for instance, fibulæ might be roughly classed by the proportions of pottery types that were found with them; but the similarities of form would enable them to be put more exactly into order. Or decorated vases could be more closely arranged by designs, after their general distribution was vaguely settled statistically.

Lastly, 5th. There must be sought the minimum dispersion of each type. It is clear that if we had a series of graves put really in the original order, any disturbance of that would be likely to spread the ranges of some of the contents. Hence the order which gives the shortest ranges of the types is probably the truth. Of course the ranges are not of the same length. Some types—especially the more simple forms—range over many centuries; other types—especially peculiar and complex decorations—were perhaps only made for a few years, or even for a single furnace load.

When we come to search the extreme instances—early and late—of each type, it is seen that they can be shortened up and concentrated until a point comes where there is tension between two types, and the card must contain either the first example of one type or the latest of another. Which is to give way is determined by seeing whether the extension of one type or the other will be most in accord with similar types related to these.

Thus finally the collection of card slips—each representing a grave—is reduced to the nearest approximation to the original order of the graves. When that is done the total slips are divided into equal groups—in the Egyptian case 900 slips were divided into 50 groups of 18 slips each—and the boundaries of the groups may be slightly modified so as to include the boundaries of well-marked types just within

Digitized by Google

a group. These groups are then to be numbered, and these numbers are the sequence dates of the groups. For the prehistoric Egyptian I have formed 50 groups, and leaving 29 stages for earlier groups that may be found, and 19 stages at the other end for later connections with historic times, I have numbered the groups used from 30 to 80. In the practical working the doubt about the position of a type rarely extends to 10 stages, and that only in case of rare types but little known; for ordinary well-known types a change of 3 or 4 stages is seldom caused by revision, and often a change of a single stage would distinctly upset the arrangement for the worse. The scale of fifty stages is therefore none too detailed. We know nothing yet of the years covered by these fifty stages; but looking at the number of graves in relation to those of the historic age, and the changes of style, we can hardly suppose it to be less than a thousand years, very possibly double that. The presumption of slower changes and fewer graves in more barbaric times would lengthen rather than shorten the estimate.

Then the lists of the range of each type can be drawn up, stating between what limits of sequence dates it is found. Such a division in stages and such a list of ranges is useful for working purposes at earlier parts of the proceedings, especially if many hundreds of graves have to be dealt with.

In dating any class of objects, such as spears, adzes, fibulæ, combs, etc., the process is to look out the age or the range of age of each of the graves in which such objects are found; such a list will run somewhat thus:—S.D. 43, 52, 47, 46, between 37 and 51, 42, between 49 and 60, and so on. Here the graves with badly defined age, as 37 to 51, and 49 to 60, do not affect the result, as the other examples all fall within those limits, and we can date the object as varying from 42 to 52 in sequence date. Sometimes we only have badly defined graves as evidence, and find such ranges as 26 to 49, 33 to 70, 42 to 60; here all we can say is that it must be from 42 to 49, and may extend farther.

On thus working out the sequence dates of the prehistoric Egyptian we can trace the course of that barbaric civilisation. Remembering that 30 to 80 is the range that we are dealing with, we can say that the finest serration of straight flint knives and lances is at 32 and extends down to 43 (see Fig. 5) in common use, and was kept up as grand specimens to 65. The forked lances with a wide fork (32 to 43) precede those with narrow cleft fork (38 to 61), and those with a definite tang for hafting go as late as 70. The curved knives with rounded butt are the earliest, beginning about 39; they are followed by the sickle-shaped knives at 45 to 65; and the very regular surface flaking on wide flat knives does not come in before 57, and becomes coarse by 65, continuing down to 78, and thus on into the early historic flaking. The large triangular flakes with partly worked edges were not very early, beginning about 41, and large ones ending at 61, while smaller flake knives last on to the end. The square-ended flake begins at 63, and lasts on till it is the main type in the early historic times.

Of the slate palettes (see Fig. 2) the rhombs and well-formed animals are the earliest, from 31 to 40 or so. The fish and turtle forms begin at 36 and become

Digitized by Google

degraded by 50, lasting on in very rude shapes to the end. The bird slates begin mainly at 44, and become degraded at 60, while the plain squares run from 37 to 70, when they were ornamented with border lines on to 80.

In the use of metals, gold and silver are commonest about 42 to 46, which is, perhaps, the age of most prosperity and foreign connections, when the decorated and later styles of pottery were coming into use. Copper was used from the earliest age, 30, when only a few simple types of cups in one kind of pottery were made (see Fig. 6). Harpoons and small chisels came in about 34, needles about 48, adzes for wood-work about 52, while a large square chisel and plain square axe blade only appear at 78. Foil and bands seem to have been made before wire was hammered out. In weapons the disc-shaped mace head is the earlier (Fig. 5) and disappears when the pear-shaped mace came in, which lasted into early history.

Thus this chaos of over nine hundred types of pottery, hundreds of stone vases, weapons and tools of flint and of copper, ivory work, and beads, extending over many centuries, perhaps one or two thousand years, has now been reduced by this system to an orderly series, in which we can not only state exactly the relative order of the objects, but also the degree of uncertainty and the extent of range which belongs to each object. We have here a new and exact method for dealing with all those vague ages as yet unfathomed, and for extracting all that is possible about their history. Prehistoric archæology has made another step toward becoming an exact science. And now the responsibility of those who excavate is tenfold increased, as the extent of their care and exactitude will more than ever restore or ruin the history of the past.

Illustrations of Sequence Dates in Prehistoric Egypt.

Fig. 1. Types of pottery of seven successive stages, the sequence dates of each being at the right. In each stage are shown forms which are peculiar to that stage, together with two forms which pass through into an adjacent stage. Thus the pottery of each stage may be regarded as what would be most typical and important in a tomb of that period. It will be readily seen how impossible it would be to invert the order of any of these stages without breaking up the links between them. Thus if there be sufficient variety of pottery in any tomb its true position in sequence with others is exactly fixed, and it cannot be displaced without stretching the range of some of the types of pottery. At the left ends of the five lower rows is the wavy-handled type, in its various stages ; the degradation of this type was the best clue to the order of the whole period.

Fig. 2. Having dated all the pottery types, it is possible to date all other objects by their association with pottery. Thus it is possible to trace the history of the slate palettes. The forms of these slate palettes, used for grinding face paint, are very varied. The rhomb is the earliest type, but died out by 37, except in rude forms, which lasted till 47. Quadrupeds are well worked at first, but become rough by 40, and rarely recognisable later on. Fishes and turtles begin at 36, become rude by about 50, and were ovals and discs by 70. Birds only begin at 46, and double birds at 38 ; they also become very rude before the end of the period. The squares begin at 37 ; but at 67 notched borders appear, and from 70 to 80 line borders.

Figs. 3, 4. The genealogies of some forms of pottery from beginning to end of the whole

Digitized by Google

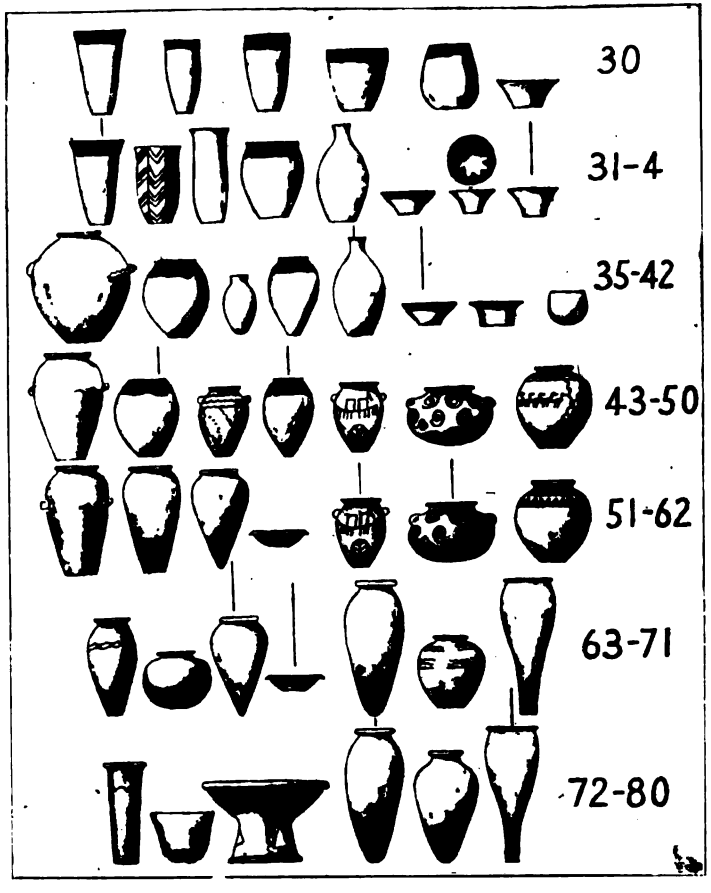


FIG. 1.—Types of pottery of seven successive stages, the sequence dates of each being at the right. In each stage are shown forms which are peculiar to that stage, together with two forms which pass through into an adjacent stage. It will be readily seen how impossible it would be to invert the order of any of these stages without breaking up the links between them. At the left ends of the five lower rows is the wavy-handled type, in its various stages; the degradation of this type was the best clue to the order of the whole period.

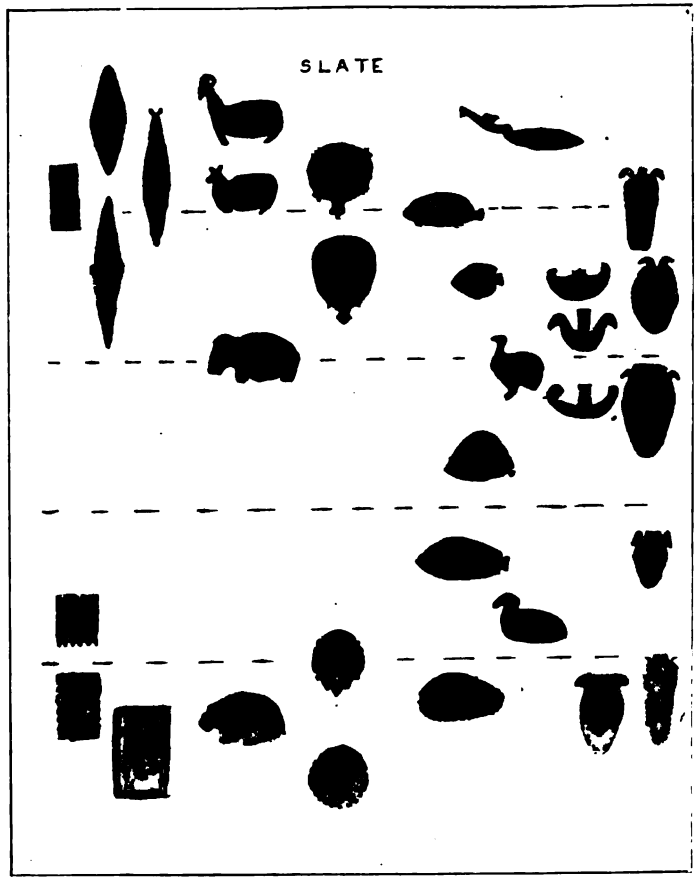


FIG. 2.—The forms of the slate palettes, used for grinding face paint, are very varied. The rhomb is the earliest type, but died out by 37, except in rude forms, which lasted till 47. Quadrupeds are well worked at first, but become rough by 40, and rarely recognisable later on. Fishes and turtles begin at 36, become rude by about 50, and were ovals and discs by 70. Birds only begin at 46, and double birds at 38; they also become very rude before the end of the period. The squares begin at 37; but at 67 notched borders appear, and from 70 to 80 line borders.

Digitized by Google

Digitized by Google

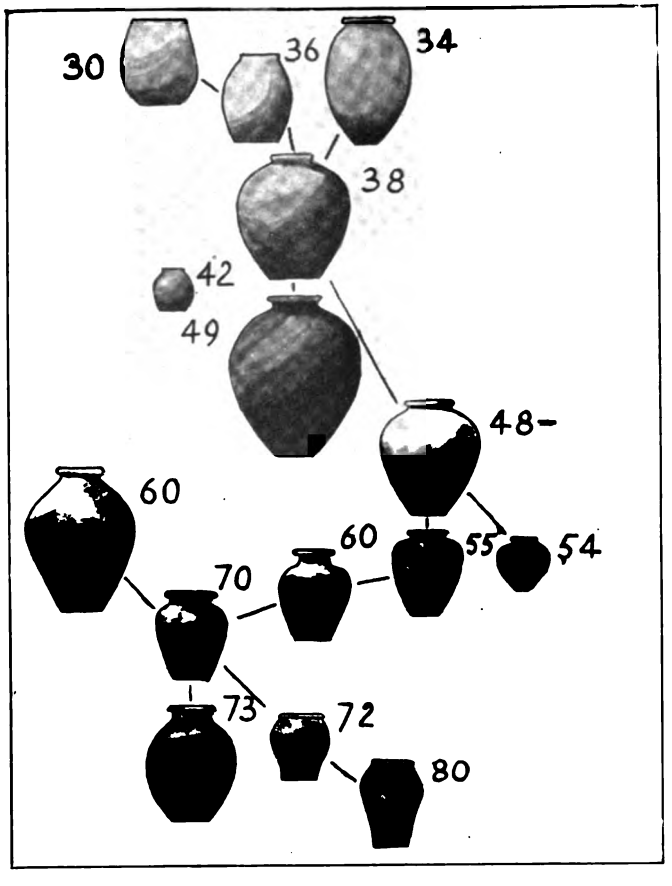


FIG. 3.

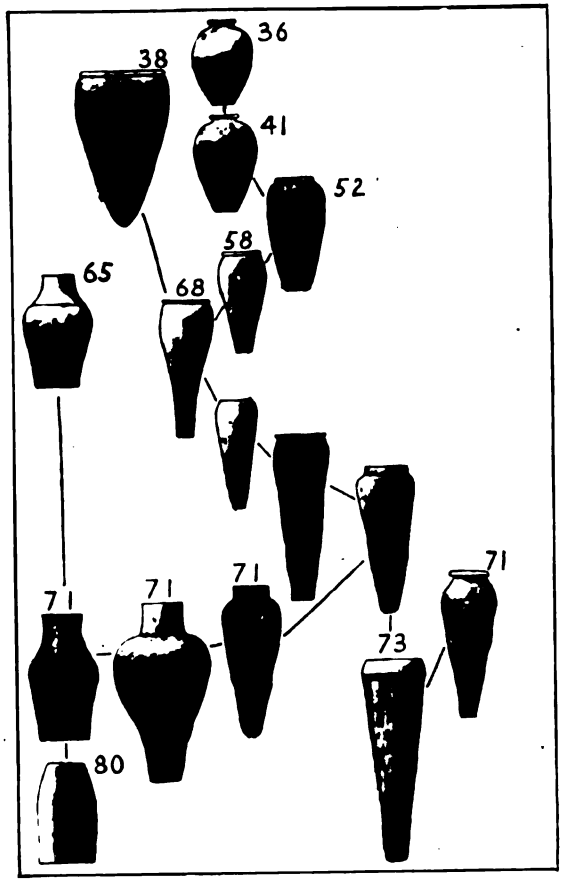


FIG. 4.

FIGS. 3, 4.—The genealogies of some forms of pottery from beginning to end of the whole period. These forms pass through two or three different fabrics showing that form is more important than material.

Digitized by Google

Digitized by Google

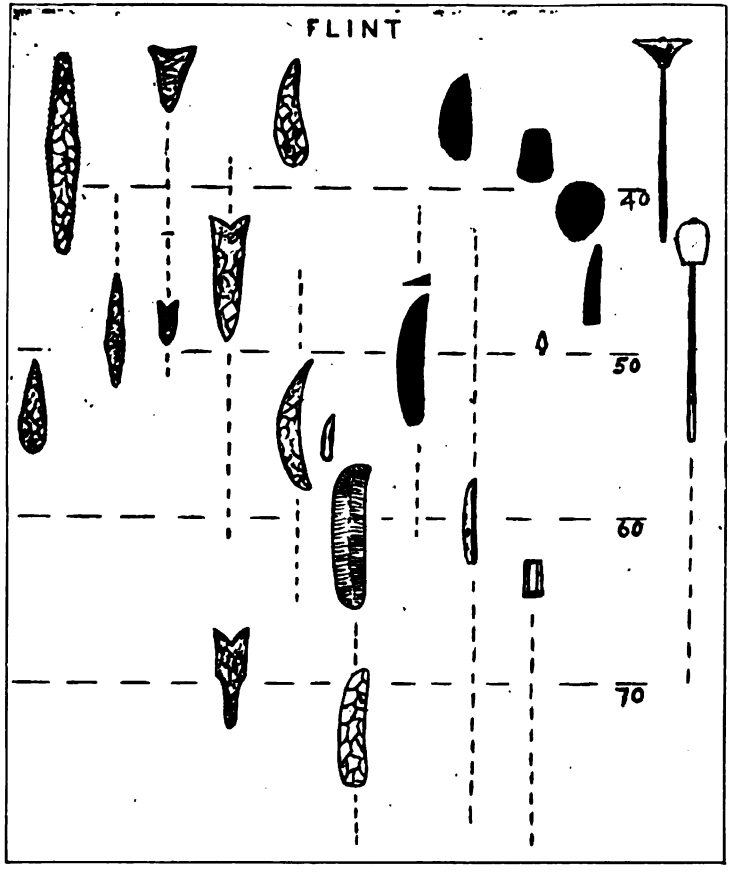


FIG. 5.—In the earliest graves the notching of the saw edge is delicate and regular, but the surface flaking is not in any pattern. The fine ripple flaking with regular ridges, on the face, belongs to the middle period of 57 to 66. The knives begin curved with rounded butt, become long and sickle-shaped, then wide and flat with straight edges, and lastly rough and thick. The forked lances are wide and flat-ended at first, then deepen to a V groove, and lastly have tangs.

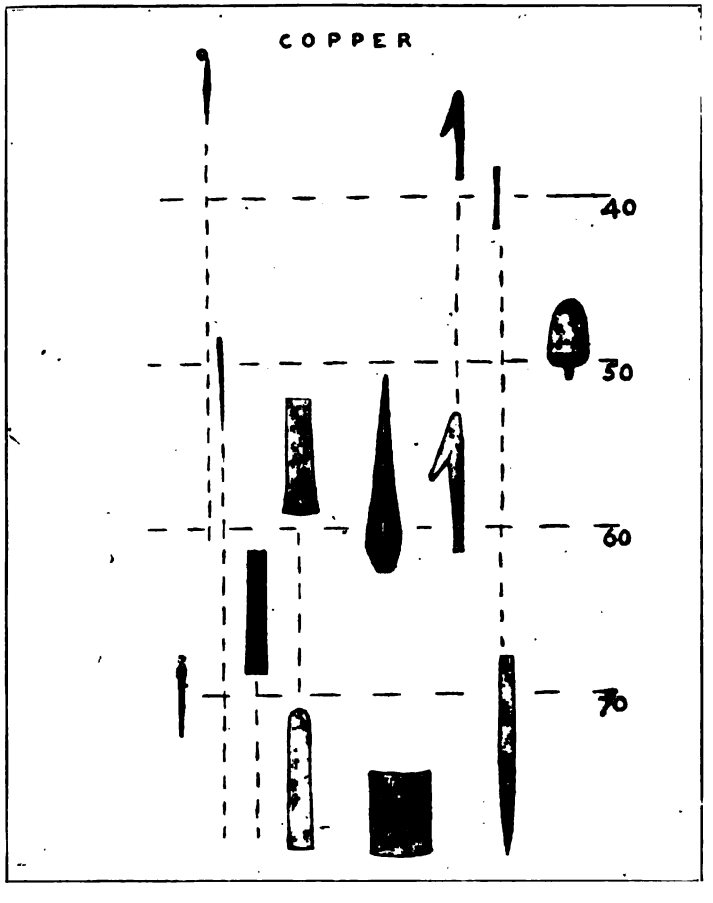


FIG. 6.—The copper tools begin with small pins to fasten the skin cloaks. Then harpoons modelled on the forms carved in bone. Small chisels appear at 38; wide adzes for wood work at 52, rounded at the top in 78; and a deep, stout chisel and simple axe at 78. Thus metal is found in the oldest graves known; it becomes varied in use by about 50, and further improved at the end of the period.

Digitized by Google

Digitized by Google

period. These forms pass through two or three different fabrics, showing that form is more important than material.

Fig. 5. The history of flint-working can be traced in the same way as that of the slates. In the earliest graves the notching of the saw edge is delicate and regular, but the surface flaking is not in any pattern. The fine ripple flaking with regular ridges, on the face, belongs to the middle period of 57 to 66. The knives begin curved with rounded butt, become long and sickle-shaped, then wide and flat with straight edges, and lastly rough and thick. The forked lances are wide and flat-ended at first, then deepen to a V groove, and lastly have tangs.

Fig. 6. The copper tools begin with small pins to fasten the skin cloaks. Then harpoons modelled on the forms carved in bone. Small chisels appear at 38; wide adzes for wood-work at 52, rounded at the top in 78; and a deep, stout chisel and simple axe at 78. Thus metal is found in the oldest graves known; it becomes varied in use by about 50, and further improved at the end of the period.

In all of these series of changes in slates and tools we see a regular progression, yet this dating results solely from the pottery with which they were found; and thus this regularity of results is the strongest proof of the true and solid basis of the classing by sequence dates

Digitized by Google

ON THE DISCOVERY OF *NERITINA FLUVIATILIS* WITH A PLEISTOCENE FAUNA AND WORKED FLINTS IN HIGH TERRACE GRAVELS OF THE THAMES VALLEY.

By H. Stopes.

[Presented at the Meeting of May 15th, 1900.]

On April 27th last I made the welcome and long-sought-for discovery at Swanscombe, Kent, of a rich deposit which should establish the geologic date of these Terrace gravels of the lower reaches of the Thames Valley. I found the workmen had cut into a deep and exceedingly fossiliferous band of stratified sands and gravels, capped with a thin layer of tough clay. Since then I have obtained many shells, bones, teeth, and worked stones, some of the latter being well-made implements. All these occur in the shell bed which rests upon the chalk at a level of 78 feet O.D. The thickness of the whole series to the surface is 14 feet, of which 10 feet yields shells.

This pit occupies relatively the same position on the left shoulder of the Ingress Valley as it rounds into the slope of the south bank of the main Thames Valley, as does the opposite pit at Galley Hill, some 500 yards distant. Twelve years ago at this point, in one of the chalk pits owned by Messrs. Bazley White and Co., was found, together with other parts of the skeleton, a human cranium of very primitive type, which has been described by Mr. E. T. Newton,[1] F.R.S. This was on the right bank, just at its mouth, of a small but well-defined tortuous valley which, starting from the centre of the great wood at Swanscombe and passing by Alkerdene and Ingress Abbey, runs into the Thames, after a course altogether of nearly two miles. The enormous drain by man upon the water in the chalk has now caused the little stream which eroded this valley to disappear, but when Swanscombe Wood was occupied by a large and very splendid fort it probably was a sparkling stream that washed round two sides of a later (so-called) Neolithic settlement of much interest.[2]

The Terrace gravels on both sides of this small valley range from 78 feet to 102 feet O.D. On the Galley Hill or north side they have been worked for forty years, and during nearly the whole of this period they have enriched many collections with tools of fine form and size. The levels of the two sides are the same. The whole of the deposit is embraced in the N.E. corner of the 6-inch sheet IX, Kent, and in the 25-inch sheet IX, 4.

[1] *Quart. Journ. Geol. Soc.*, Aug. 1895, vol. li, pp. 505–527, 2 plates.
[2] *Proc. Brit. Assoc.*, 1894, p. 785.

Digitized by Google

Doubt has often been thrown upon the age of these deposits, as hitherto only five mammals and four molluscs have been recorded by Mr. Newton, and some of these were taken by Mr. Spurrell from the lower brick-earth. Careful examination of the numerous species represented by the vast numbers of shells and the fragments of bones, etc., now exposed should enable their position to be determined with fair exactitude. The problem will require prolonged examination and study, which must be speedily undertaken, as the whole deposit is now being rapidly removed.

The association of *Neritina fluviatilis* with so many extinct species and at this altitude in British gravels has not hitherto been recorded.

Mr. A. S. Kennard has thus far determined the following species:—

Elephas primigenius.
[1]Rhinoceros leptorhinus.
Bos primigenius.
Equus caballus.
Cervus elaphus.
Canis lupus.
Helicella caperata.
Helix nemoralis.
Pupa muscorum.
Pyramidula rotundata.
Ancylus fluviatilis.
Limnæa auricularia.
„ peregra.
„ truncatula.
Planorbis nautileus.
„ marginatus.
„ glaber.
„ spirorbis.
„ contortus.
[1]Paludestrina marginata.
Bithinia tentaculata.
Neritina fluviatilis.
[1]Unio littoralis.
„ tumidus.
[1]Corbicula fluminalis.
Sphærium corneum.
Pisidium amnicum.
[1] „ astartoides.
Pisidium fontinale.

[1] Now extinct in Britain.

Digitized by Google

ANTHROPOLOGICAL REVIEWS AND MISCELLANEA.

Readers of the Journal are invited to communicate any new facts of especial interest which come under their notice. Short abstracts of, or extracts from, letters will be published at the discretion of the Editor. Letters should be marked "Miscellanea" and addressed to The Secretary, 3, Hanover Square, W.

New Zealand Kotahas or Whip Slings, for Throwing Darts, in the British Museum. (With Plate XXXIV.)

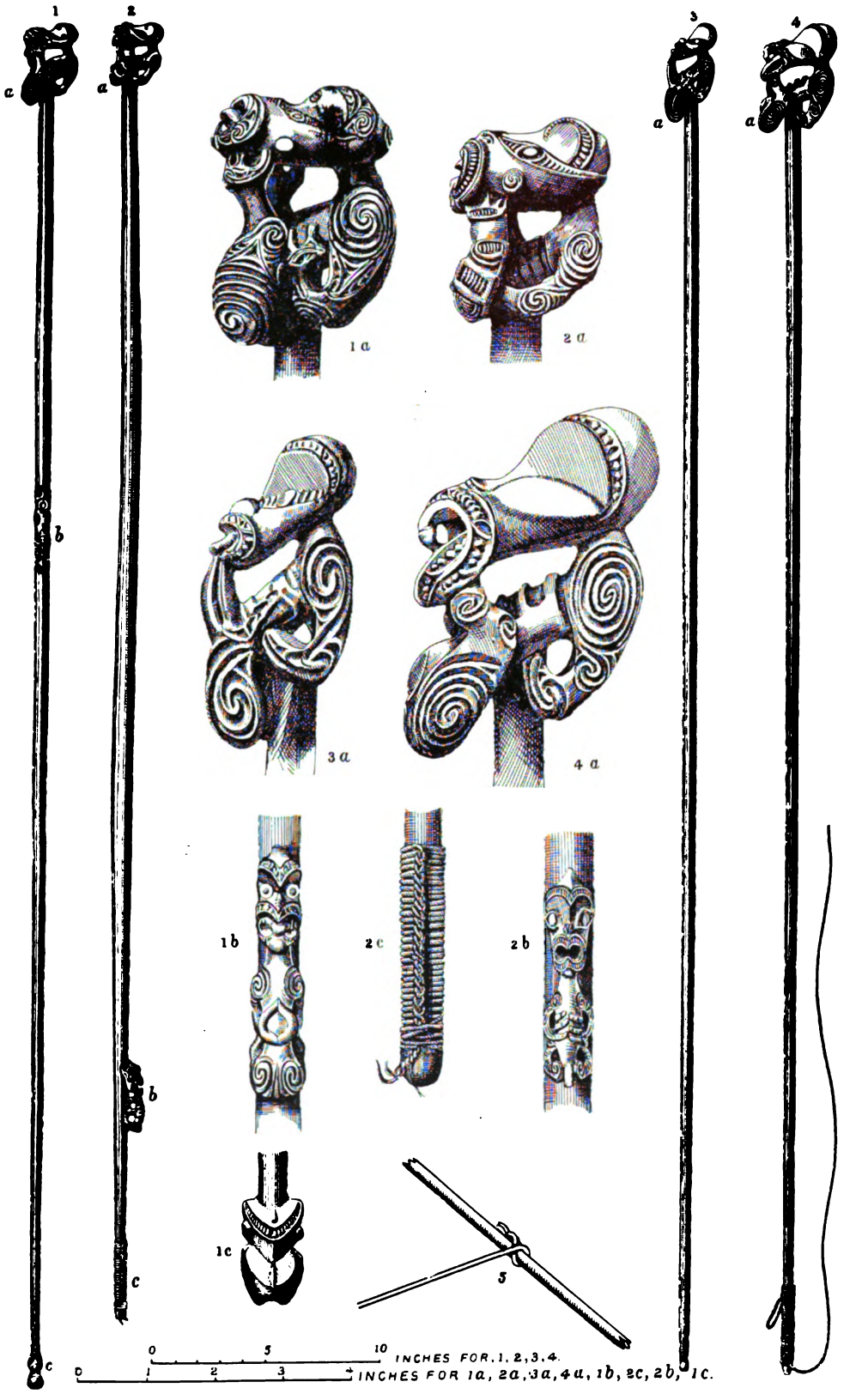
Mr. Hamilton in his work on *Maori Art* (Plate XXX, Fig. 2) figures a native using a kotaha in the act of throwing a kopere or dart.

Among the very earliest acquisitions in the British Museum are four specimens of the kotaha, one of which I figured in the Ethnographical Album (Plate 380, No. 2). At that time the use of this implement was unknown to me, and although I had photographs taken and sent out to New Zealand, I was unable to obtain any information until I was out there myself in 1897. By the courtesy of Mr. Cheeseman, the Curator of the Auckland Museum, who takes the greatest interest in everything affecting the Ethnography of the Maori, I interrogated, through the Government interpreter, two old Maori chiefs, who happened to be in Auckland at the time of my visit, and was enabled to go through with them not only the specimens in the Museum, but also the drawings in the album, as well as those in General Robley's work on *Moko*, and to gather some valuable information and corrections. Of the kotaha there is not, as far as I was able to learn, a single specimen in New Zealand. The use of this implement was to throw darts into besieged camps, and from the description given me by the Maori chiefs it could be thrown to a very considerable distance. Now to do this it is evident that the shaft of the kotaha must be both longer and more pliant than the one figured by Mr. Hamilton.

The early writers speak of throwing darts into besieged camps as well as throwing bunches of lighted leaves, but do not describe the means by which this was done. It is evident that the kotaha was the implement used. Mr. Hamilton speaks of the cord being made of dog's skin and passing through a hole at the end of the kotaha. It will be seen that in none of the four specimens here figured is this the case. The cord is of twisted fibre and is lashed on to the end of the shaft which terminates in a knob to prevent the cord from slipping. (Fig. 2c.)

Mr. Hamilton describes the dart "as a rough stick, fairly straight, from four to five feet long, with one end sharply pointed, and the point charged in order to harden it, it was moreover cut nearly through about two inches from the point, so that it might easily break and leave the piece in the body of the wounded enemy." The darts, he says, were stuck loosely in the ground pointing in the direction to

Digitized by Google



NEW ZEALAND KOTAHAS OR WHIP-SLINGS.

FOR THROWING DARTS: IN THE BRITISH MUSEUM.

Digitized by Google

Digitized by Google

Digitized by Google

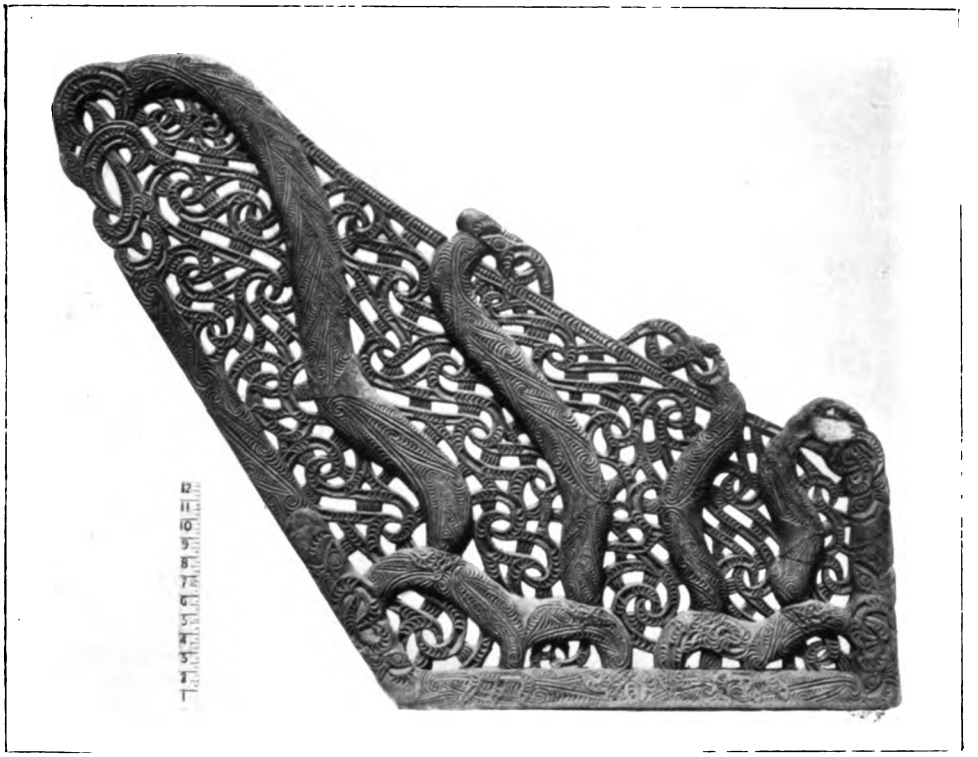


FIGURE-HEAD OF A WAR CANOE, NEW ZEALAND.
British Museum. Scale in inches = $\frac{1}{10}$ natural.



A CHIEF'S IMPLEMENT OF WAR ("TOKI"), NEW ZEALAND.
British Museum. Scale in inches = $\frac{1}{4}$ natural.

Digitized by Google

which they were intended to be thrown, the cord was then looped round the dart as shown in Fig. 5, copied from the illustration in Mr. Hamilton's work.

I do not know of a specimen of the kopere in this country, nor did I see one when in New Zealand. JAMES EDGE-PARTINGTON.

NOTE ON A CARVED CANOE HEAD FROM NEW ZEALAND. (With Plate XXXV, 1.)

Mr. Hamilton in his work on Maori Art, p. 12, in describing this particular type of canoe head, speaks of it as being very scarce, and that it appears to have been almost confined to the North, more especially to Auckland and the district of the Waikato Riv When complete, he says, it consisted of four parts, instead of a single piece carved from the solid as in the case of the commoner type (Hamilton, Maori Art, Part I, Plates I, IV).

Our illustration shows the central portion, the three remaining parts consisting of (i) a flat base, grooved along its centre and across its broadest part to receive the two upright portions. (ii) A cross piece on which is carved the little human figure, (Huaki) which looked into the interior of the canoe, and (iii) a realistic human head, sometimes movable, and without the usual protruding tongue, affixed to the front of the base. (Hamilton, Part I, Plate X.)

Mr. Hamilton speaks of this central portion, both in the case of the composite form, and of the type carved from the solid as being alike, called by the natives "Manaia." He does not give a reason for the name, but it is, I think, taken from the ornamentation on the composite form, which is clearly derived from a snake (manaia). This form was, I believe, only used on the ancient canoes, each of which was known by a particular name.

The ordinary war canoe is the product of a later date. When the Maories took to carving the figure-heads from the solid, they still gave the name of manaia to the central ridge, though the original style of carving was now completely altered. In this sense the name would appear to be a survival.

In speaking of the ornamentation, Mr. Hamilton says that the whole of the art work of the Maories comes under the head of ornament; there are no representations in the solid of plant or animal forms, other than human, with a few exceptions, of which the manaia, a lizard or snake, is a remarkable example; of this there are several varieties, that having a snake's body with an eagle's (?) head being one of the most interesting, and carrying us back to some of the older mythologies. Specimens of these figures, which are so clearly represented in the subject of this note, are of considerable rarity. Mr. Hamilton figures two on Plate V, and another in the complete form on Plate X, and in the third series of the *Ethnographical Album* (Plate CLX) I have figured one in the Auckland Museum. In this Museum is preserved one of the ancient war canoes, nearly 80 feet long, the figure-head of which is in the possession of H.R.H. The Duke of Saxe-Coburg Gotha, and was exhibited for some time at the South Kensington Museum. Fortunately they have been able to replace it with one almost as good. The specimen here figured is at present in my possession.

C. H. READ.

NOTE ON A STONE BATTLE-AXE FROM NEW ZEALAND. (With Plate XXXV, 2.)

The subject of this note was, I think, a weapon and not an implement, and ranked with the *meri pounamu* as a chief possession. It was known as a *tohi-pu-tangata*, or warrior's stone battle-axe. (Polack, *Narratives of Travels in New Zealand*, 1838, II, p. 25.) Aiyai in her *New Zealanders* figures one in the hands of a warrior going to battle. (Plate LVIII.) In many cases the butt of the handle was pierced for a wrist-

Digitized by Google

cord, as is the case in this particular specimen, thus showing that it was used as a weapon.

Although there are many specimens in museums and private collections, there are a very few indeed which are in their original condition, like that now in question with this. It was obtained by Mr. Charles H. Read at the sale of the Wallace Collection at Distington, near Whitehaven, and so highly did the late owner prize it that he had a replica made, using fine Tahitian sennet for the lashings. This replica was sold at the same time, and I am afraid will turn up in some collection as an original.

The specimen here figured is at present in the possession of Mr. Read, but it is hoped that some day it may find a resting place in the British Museum.

JAMES EDGE-PARTINGTON.

NOTES ON THE ROMAN ORIGIN OF A MEDIÆVAL CHARM.

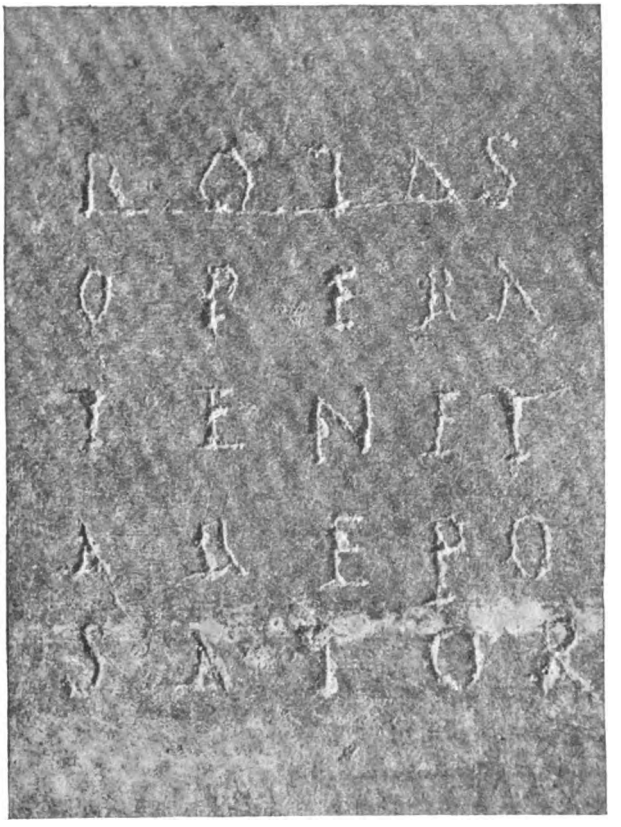
The charm :—

R O T A S
O P E R A
T E N E T
A R E P O
S A T O R

is well known. It was used throughout the middle ages, and I am told is still employed in some parts of the world to-day. I here wish to notice only one point about it—its origin. Most writers call it mediæval, and in the latest discussion of ancient charms, by R. Heim (in Fleckeisen's *Jahrbücher*, xix Suppl., pp. 463–576), it is explained as constructed out of a monkish rule, SAT ORARE POTEN*ter* ET OPERA*re* Rati*O* Tu*A* Si*t*. This is not a convincing theory : it is not even good monkish Latin, and I think the charm can be traced back beyond the monks. In 1868, some Roman remains were found at Cirencester near the Victoria Road. These remains included coins, tiles, and painted wall-plaster, and among them was a piece of painted wall-plaster with the charm scratched on it through the paint (see full-size illustration). The object was taken out of the ground under the eyes of Captain Abbott, then Curator of the Cirencester Museum, and deposited in the Museum, where I have seen it. Professor A. H. Church has published it in his *Guide* to this Museum (Cirencester, eighth edition, 1894), but it seems otherwise to have escaped the notice of many who would naturally be interested in it. The following reasons seem to me to confirm its Roman origin. In the first place it was found in the presence of a competent witness, and no one, Professor Church tells us, had any interest in forging it, or gained any money by its discovery. Secondly, the plaster and the lettering seem to me to be Roman, in particular the shape of the λ for A, and the guiding-line drawn under ROTAS is familiar enough on Roman inscriptions, especially those of a late date. Thirdly, the object was found among Roman remains, and would naturally be considered as a bit of wall-plaster from the same walls as those from which came the other wall-plaster then discovered—some of which is also in the museum, and, as it seems to me, is ordinary Roman wall-plaster. I emphasise these reasons, for I know no other Roman example of this charm. One was found in the south of France, which has sometimes been considered Roman (C. I. L., xii, 202*), but it appears really to be mediæval. Nor do I know of any exact parallel of Roman date. The nearest, perhaps, are some "Palindromes" such as, for instance, we meet two pavements of Christian date ornamented with the words *Sancta Ecclesia* and *Marinus Sacerdos* in very elaborate anagrammatic fashion. These, however, are devices and

Digitized by Google

not charms. Despite, however, the absence of exact parallels, I venture for the reasons given above to ascribe this object to Roman times. It would be rash to date it more nearly. The lettering seems to me to agree with a late date, but I should not like to base anything on twenty-five letters. I would rather follow the indications afforded by the imperfect parallels just mentioned. These and others like them are hardly known till the fourth and fifth centuries. As to the word *Arepo*, I venture no observation. It may be connected with the Celtic *arepennis*, a measure of land, and *arare*, to plough. Or it may be *opera* reversed to make the recurrence of the letters perfect. If it is the former, we may be inclined to fancy that the charm or device was invented in Celtic lands, in Gaul or in Britain.



The following references on the same subject may be added :—R. Heim : *Incantamenta magica graeca et latina*, in Fleckeisen's *Jahrbücher* xix, Supplement, pp. 463–576. *Zeitschrift für Ethnologie*, xix (1887), p. 72 : *Verhandlungen der Berliner Gesellschaft für Anthropologie* in *Z. f. Ethn.* 1880–4. *Corpus Inscriptionum Latinarum*, viii, 9710–9711, and xii, 202*. Holder, *Alt-keltischer Sprachschatz*, s.v. Arepo, and *Archæological Journal*, Dec. 1899, where the Cirencester inscription is further described.

Since writing the above, Professor Sayce has told me that he lately detected the charm, written in Greek letters, among some inscriptions on a tomb, converted into a Coptic church, in Nubia. These inscriptions he thinks to belong to the eighth century, to which period one of them is actually dated. See his article in the *Recueil de Travaux relatifs à la Philologie et à l'Archéologie Egyptiennes et Assyriennes*, xx (1898), p. 176.

F. HAVERFIELD.

Digitized by Google

PREHISTORIC CHRONOLOGY. By Professor Oscar Montelius.

The usual course of lectures on the Yates foundation at University College, London, was delivered this year by Professor Oscar Montelius, of Stockholm, who has kindly furnished the following summary of his conclusions:—

"The determination of a chronology is of the greatest importance for prehistoric research. Chronology may be (*a*) *relative*, determining only the succession of the several periods; or (*b*) *absolute*, giving a date B.C. or A.D. for each period of a series.

"A *Relative Chronology* is possible for every age and every country, if only we have a sufficient number of good finds. A 'good find' is composed of antiquities found together in such a way that they must have been placed there at the same moment. Objects found in a lake-dwelling or any other dwelling-place, however, cannot be considered as a good find, because they do not conform to this condition, and so do not necessarily date from the same time. Similarly, if all we know is that certain antiquities have been found in a barrow, or in a grave-chamber, they cannot be used as a good find for chronological researches, because a barrow often contains several graves, and in a chamber we often find more than one body. The best finds are (1) graves containing only one body; (2) hoards.

"When a great number of good finds have been made in different countries, it is possible to divide the course of the prehistoric civilisation of each country into many periods. The succession of these periods is proved either by the relative position of the graves, or by the typological evolution of their contents. Typological series were illustrated in the course of the lectures by lantern diagrams showing (1) axes of stone, copper, bronze, and iron from Italy, and from Central and Northern Europe; (2) fibulæ from Italy and Scandinavia; (3) sword hilts in Scandinavia; (4) bronze vessels in Scandinavia, etc. Other diagrams exhibited the most characteristic types for the Copper Age, and for each period of the Bronze Age and Iron Age in Central and Northern Italy, in Central Europe and France, in Great Britain and Ireland, in North Germany, and in Scandinavia.

"The various types which are characteristic of any one period are very often met with in the same find; but types belonging to different periods are seldom found together. If, however, the types of any two periods are occasionally found together, these two periods are immediately successive in the series. Exceptions to this rule are remarkably rare, if not altogether absent. This proves that each period must represent a considerable length of time; for if the time had been short, the remains from different periods ought to have been much more confused than is found to be the case.

"An *Absolute Chronology* also can now be given for all these periods of the prehistoric civilisation of Europe; because not only the Iron Age and the Bronze Age, but also the Copper Age in Europe is contemporaneous with a historic period in Egypt and in Western Asia; and because numerous points of connection are known between the different parts of Europe and the East from the beginning of the Copper Age onwards.

"The date of each period is indicated in the table on p. 309."

In a discussion which followed the last of these lectures, Professor Flinders Petrie observed with reference to Professor Montelius' view of the relations which could be detected between the dolmens of N.-W. Europe, and those of N. Africa and Syria, that the probability that the dolmens belong to one continuous series, passing from Syria, along N. Africa, and up Spain to W. Europe, gives some clue to their age. There are no dolmens in Egypt, although they are in the lands on

Digitized by Google

B.C.	Central Italy.	Central Europe.	Great Britain and Ireland.	Scandinavia and North Germany.
2500	Copper (and Stone)	Copper (and Stone)	Copper (and Stone)	Copper (and Stone).
2400				
2300				
2200				
2100				
2000				
1900	Bronze Age	Bronze Age	Bronze Age	Bronze Age
1800	,, ,, 1	,, ,, 1	,, ,, 1	,, ,, 1
1700				
1600	,, ,, 2	,, ,, 2	,, ,, 2	
1500				,, ,, 2
1400	,, ,, 3	,, ,, 3	,, ,, 3	
1300	,, ,, 4			,, ,, 3
1200				
1100	,, ,, 5	,, ,, 4	,, ,, 4	,, ,, 4
1000	Iron Age 1			
900	,, ,, 2	,, ,, 5	,, ,, 5	,, ,, 5
800	,, ,, 3	Iron Age (*Hallstatt* 1) 1	Iron Age (*Late Celtic* 1) 1	
700	,, ,, 4			,, ,, 6
600	,, ,, 5			Transition to Iron Age.
500	,, ,, 6	(*Hallstatt* 2) 2		
400	Historic Time		(*Late Celtic* 2) 2	Iron Age 1
300	,, ,,	(*La Tène* 1) 3		
200	,, ,,	(*La Tène* 2) 4		,, ,, 2
100	,, ,,	(*La Tène* 3) 5	(*Late Celtic* 3) 3	
A.D.				,, ,, 3

either side; and neither the pyramids nor other monuments are structurally descended from dolmens, but from wooden prototypes. This points to the dolmen-wave having passed Egypt when that land was a sandy waste, before Nile deposits had made it a fertile and inhabitable region. From the depth of the deposits, that cannot be after about 8000 B.C.; hence it would seem that the dolmen type passed from Syria to N. Africa before that date.

Professor ERNEST GARDNER said he wished to ask Professor Montelius two questions, arising directly out of the lectures.

Digitized by Google

The first affected the relations between the north of Europe and the Mediterranean in the time of the Cromlech builders. Was Professor Montelius of opinion that the relations at this time were of influence rather than of commerce? The importance of the distinction lay in the fact that while influence might be all in one direction, and the time it took to spread from one region to another might vary considerably, commerce must be reciprocal, and must, as Professor Montelius had shown in the case of the amber traffic, imply an almost, if not quite, contemporary development.

Professor MONTELIUS replied that the relations at this time were certainly of influence, not of commerce.

Professor ERNEST GARDNER'S second question was about the absolute chronology of Professor Montelius' periods, especially of the series that runs from the Mycenean age to the Persian wars. The limits at each end appear to be fixed with certainty, but some of the dates given to intermediate periods, *e.g.*, that of the Regulini-Galassi tomb, are extremely difficult to reconcile with other archæological data. In view of the well-known fact that fifty years at one time often contain as much progress as two centuries at another, did Professor Montelius think it possible that some of the earlier periods might be longer, and the later ones shorter in actual duration of time, so that the middle periods would fall rather lower in the chronological scale?

Professor MONTELIUS thought that this was hardly possible, at least to any considerable degree. His chief reason for thinking this was that good finds never contained objects belonging to periods that were not consecutive; while, if any of the periods were shorter, some objects from the preceding period would be almost sure to have survived into the succeeding one, and so we should find objects with a range of three or more periods in a single find.

ON THE JUDICIAL OATHS USED ON THE GOLD COAST.

During my stay on the Gold Coast I was able, through the kindness of friends and by personal observation, to collect some interesting facts as regards the judicial oaths sworn in the native courts. The use of these oaths is undoubtedly slowly, but surely, dying out, partly owing to European legislation forbidding the use of those implying a curse on the native kings, or endangering their lives, and also because the people are more and more abandoning their native chief's courts for those held under European officials which they recognise as being uninfluenced by bribes or local intrigues. Some even bring their cases from great distances to be tried in Accra.

It will be noticed that the names of the oaths, in the districts to which I shall refer, recall almost invariably the memory of some disaster, or are associated with some disagreeable or painful reminiscence.

The oaths in use or recognised in the native courts of the Akwapims are three in number.

1st. *Wukudu*, commonly called the Wednesday (Wukudu) oath, also called Sokoda, from the name of the place where on a "Wukudu," or Wednesday, a former King of Akwapim was defeated in battle and lost his life. This oath when sworn on anybody may be tried by the chief of the village or town and a portion of any fine imposed by him usually remitted to the King of Akwapim.

The second oath "Mtankese Miensa" is of much higher importance than Wukudu, and can only be dealt with by the King himself, and not by local chiefs. "Mtankese Miensa" means "three great oaths" which are not allowed to be mentioned individually by name. The expression used is "Meka Mtankese Miensa," "I swear by the three great oaths."

Digitized by Google

The names of these are Saresu, Kwabrenyan, and Kwanyako.

1. Saresu, is the Tehi word for a prairie, and refers to the prairie where a king of Akwapim was killed in battle with the Accras.

2. Kwanbrenyan, is the name of a village where a king of Akwapim sought refuge during a civil war, but was discovered and killed by his adversaries.

3. Kwanyako, is a place in Fanti, where a king of Akwapim fled and committed suicide after a defeat by the Accras. When this oath is sworn, the whole community of the village or town mourn on account of the sad memory it recalls.

Nshira, the third form of oath, means "blessing," but is applied to the oath sworn by the life of the King (*i.e.*, "May he, the King, die if my cause be not avenged or substantiated"), and then means cursing.

"Wa shira," "they have blessed," is the expression used and signifies that the King's life has been invoked by a party calling on his Fetish, say "Tofie Katawere" or "Kofi oni Somanka," the last-named Fetish being the most dreaded, to kill the King if the party on whom the oath is sworn refuses to attend or fails to substantiate his case. When a third party reports to the chief of a district that he has heard this oath sworn, he simply says, A. or B., has "blessed" on C. or D., meaning really has "cursed" the King.

As soon as the chief hears of it, he sends out and arrests the litigants, has sheep sacrificed on the spot where the swearing took place, and the mutton packed in hampers and carried by the litigants to the King.

The chief's messengers on arrival report what has occurred to the King's linguist who brings the matter to the King saying "Olis Aye," "Somebody has done," leaving the rest to be implied.

Thereupon the King assembles his chiefs and headmen, has two more sheep killed, and the blood sprinkled on the sacrificial stone to appease the Fetish. Originally the penalty of swearing this oath was imposed on both parties, and their families had to pay all the expenses of sacrifices, etc.; afterwards only the unsuccessful party was executed, and British legislation led to the penalty being reduced to a fine of 1500 herds of cowries, *i.e.*, £75, then to a further reduction to £6 8*s.*, or £8, 2 sheep and 4 bottles of rum, and councillors' fees of £2. The unsuccessful party had also to pay for the sheep killed on his arrest and for those killed by the King to appease the Fetish. It is no longer allowed by English law. The penalties imposed in swearing Mtankese Miensa are the same, but tho attendant expenses are not so heavy. For swearing Wukudu the fines vary, from two bottles of rum to £3 6*s.* 8*d.* and sheep must be killed. In Akwapim, where formerly human sacrifices prevailed, and later on sheep were substituted, rum is now often used instead, the King's person and stool being bathed and sprinkled with it when "Making Custom," as the expression used in broken English is.

In the Attabubu district, south-east of Kuucarri between it and the Volta river there is the "Tiquah" or King's oath. The King alone tries "Tiquah." A. accuses B. of a crime, viz., theft, and swears "Tiquah" on the accused. The accused may or may not swear "Tiquah" that he is innocent; if he does not, he is considered guilty, and pays the King from £2 to £8 according to circumstances, and has to give his accuser a large sum over and above the value of the stolen property in compensation. If the accused too swears "Tiquah," he did not commit the crime, both are taken to the King's Court and the one on whom "the case falls" has to pay the cost of the "Tiquah." If the accused is found innocent he can in turn bring an action for damages against his accuser.

The oath "Tram" is of the nature of Nshira, and is not used now. It begins

Digitized by Google

"Ohencimeo" "May the King die" if T.A. did so and so, or if B. did not do so and so. It recalls the memory of the King's ancestors, perhaps killed in battle, and the king fasts. There are also Fetish oaths, *i.e.*, swearing by various Fetish, viz., may "Kodakrah" (Attabubu fetish) kill me if I don't speak the truth, or if I hide anything, an oath commonly sworn by witnesses.

They also swear by various Fetishes against an accused, but unless Tiquah is also sworn the matter is not brought into Court, but left between the Fetish and accuser or accused, whichever swears by them. If he is not killed by the Fetish, or does not die in the ten or twenty days or other time specified in his oath he is considered innocent.

The ground, *i.e.*, what is eaten out of it like yams, plantain, etc., is invoked as Fetish, also water. Towards Krache pyramidical heaps of earth are built and made Fetish.

I have also heard of another curious form of oath. During a case being tried one man said to another, "I swear by this woman's foot that you did so and so," in this instance it was committed theft. The accused swore by the woman's foot that he was innocent, and that his accuser had committed the offence. Now the woman was a leper and her foot much diseased, the men swearing by her foot recalled to her the trouble and expense her foot had caused her in trying to cure it, and in the King's Court she would be entitled to damages from the one swearing falsely in consideration of the unpleasant remembrance brought to her mind,—and this principle seems to apply to all oaths sworn in the King's Courts.

A. Clark.

Astrology and the Divining Rod.

In Pennant's *Tour in Wales* (London, 1778, pp. 53–4) the following remarks on the Divining Rod occur:—

"I have mentioned above the casual detection of our mineral wealth. It will perhaps amuse the reader, by informing him, that in this country, [Flint] within my memory, recourse was had to the *virgula divinatoria* or divining rod; which by powers sympathetic with the latent ore, was to save the usual expenses of search, and to point out the very spot where the treasure lay. A foreign adventurer, half knave, half enthusiast, made the trial; but it proved as unfortunately unsuccessful to himself as to his admirers. The instrument of the attempt was no more than a rod forked at one end, 'to be cut in a planetary hour on SATURN'S day and hour; because SATURN is the significator of *lead*' *Jupiter*, *Venus*, *Sol* and *Mercury* were also concerned in the time of the operation. '*Jupiter* or *Pars Fortunæ*, was to be in *Conjunction*, *Sextile* or *Trine* to the LORD of the ascendant or second; and the better, if any reception happen; but BEWARE it be not by *Square* or *Opposition*; for that spoils all.'[1] Thus cut it is laid by for use on a heap of wheat or barley; and from the rod of *Moses* was also profanely called the *Mosaical* rod. This was to be held by the forks in both hands; and carried over the grounds suspected to contain the ore. It went unaffected over all the barren spots; but no sooner did it impend over a vein, than it pressed strongly down, and seemed to feel the same attraction as is between iron and the magnet. The sensible *Agricola* speaks of this practice incidentally, and gives a long account of the process, but places no kind of faith in it, assuring us that the skilful miner should follow the natural signs of the mineral veins, and despise the use of these enchanted sticks. He traces their origin from imposture."

Mr. Andrew Lang notes in his Essay on the Divining Rod in *Custom and Myth*

[1] Hooson's *Miner's Dictionary*, art. "virgula divinatoria."

Digitized by Google

that while Bleton, the great water finder of the eighteenth century, declared that the physical sensations of the searcher communicated themselves to the wand, the African theory is that the rod is inspired, and that its holder is influenced wholly by the rod. The African theory is evidently the more ancient and primitive of the two, and is that indicated by the astrological directions for choosing a rod which are here given. The ascent of man, not merely to the position of predominant partner, but to that of sole indispensable agent, is shown not only in Bleton's case but on the practice of the most advanced dowsers of our own day, to most of whom the rod is but a ceremonial accessory with which they frequently dispense altogether. T. V. H.

The Bicycle and Crime.

In the *Pall Mall Magazine* for March, 1900, there is an article with the above title by Professor Lombroso. He remarks that "no modern mechanism has assumed the extraordinary importance of the bicycle, either as a cause or as an instrument of crime." Four examples are given of youths, two of them of good family but all with more or less natural tendency to crime, who resorted to theft, and in one case to murder, in order to obtain bicycles for their own riding. Then instances are given of cycles stolen that they might be sold again, and of the facilities afforded by cycles for the commission of crime. It is, however, admitted on the other hand, that the bicycle can also be used as an additional means for the suppression of crime, and that cycling is a healthy exercise, a passion for which is incompatible with the excessive use of alcohol. And as to health, Prof. Lombroso remarks:—"As a mental specialist I have seen the gravest forms of neurasthenia and melancholia yield before this marvellous machine, and I am sure that your great English specialists will bear me out."

Though the article is headed "The Bicycle and Crime," it is obvious that the remarks on the bicycle as a health restorer form the chief contribution to our knowledge of bicycle influences. For the desire to possess a bicycle may become a source of crime, but only as a desire to obtain an umbrella, a watch, or a diamond ring may become criminal, every object of desire becoming a "cause of crime" in the proportion of its popular attractiveness. Prof. Lombroso, however, admits that "the healthier men are, the better they are; and in so far as the bicycle makes for health it indirectly diminishes the causes of crime." The ape-like attitude of the "scorcher" and his habits generally, can, however, hardly make for health, and it would be interesting to learn whether the appearance of a hunted pickpocket which the scorcher presents is often, or not, the outward and visible sign of inward criminal tendencies. Perhaps this, with the influences of skirts and bloomers on the other sex—who almost invariably sit upright on their cycles—may be noticed in some future contribution of the great criminologist to this subject. T. V. H.

Note on Anthropometrical Instruments devised by Professor Rudolph Martin.

At a meeting of the Anthropological Institute held on December 14, 1899, Mr. Duckworth exhibited some instruments devised by Professor Rud. Martin (Honorary Fellow of the Anthropological Institute) of Zürich. The instruments consisted of a new stand for carrying skulls, and of a set of anthropometric instruments for travellers. Of these a full description will be found in the *Archiv für Anthropologie*, 1899 (Bericht der III gemeinsamen und XXX allegemeinen Versammlung in Lindau.)

Digitized by Google

Note on the Congress of the German and Viennese Anthropological Societies held at Lindau from the 4th—7th of September, 1899.

The thirtieth annual Congress of the German Anthropological Society was combined with the third Congress of the German and Viennese Anthropological Societies, and was held at Lindau on Lake Constance. Many circumstances combined to render the selection of this town an exceptionally happy one. For while it is the frontier town between Bavaria and the Austrian Tyrol, Lindau is situated in a district, which, as the excellent local museums (especially that at Constance) show, has proved a rich field for archæological research. If additional attractions were needed, they were amply provided in the form of beautiful lake and mountain scenery; and lastly visitors had the benefit of the great experience and foresight of the General Secretary, Professor Ranke of Munich, whose able management was seconded by an energetic local Committee.

It is not intended to give anything approaching to a detailed account of the Congress, of whose proceedings a full report appears in the *Correspondenz-blätter* of the German Anthropological Society; but it may suffice to mention that the general programme consisted of a series of sessions at which papers were read, and secondly of a number of excursions to various places of interest in the neighbourhood. After a preliminary social gathering in the town theatre, the official opening of the Congress took place on September 4, in the Council Chamber of the Town Hall. The list of communications was so heavy that it became necessary to hold an additional session. Though it is impossible to describe or even enumerate all the papers read, special reference seems to be called for by the valedictory address of the retiring president, Professor Waldeyer of Berlin, who before giving place to Frei herr Audrian, briefly reviewed the position of Anthropology as a subject of University teaching. It is interesting to notice that the University of Munich (Professor Ranke) leads the way in Germany in this direction. It is to be hoped that Professor Waldeyer's earnest appeal for the fuller recognition of the value of the subject will be responded to both widely and appropriately.

Of the succeeding communications, the most important were those of Professor Virchow (especially on the progress of Anthropology), of Montelius and Ranke (on Prehistoric Archæology) and on the physical side, those of Kollmann, Hagen, Martin and Klaatsch call for particular mention.

The excursions took the form of a series of visits to local museums where the evidence of prehistoric inhabitants of the shores of the lake is shown abundantly in the form of portions of the piles on which their dwellings rested, in addition to a great variety of objects, pottery, weapons, etc., representing their particular degree of culture and manner of life. At the termination of the Congress at Lindau a visit was made to Robenhausen in Switzerland, where Dr. Messikommer, so well known for his researches on the Lake dwellings of Switzerland, conducted members of the Congress to a newly discovered lake-dwelling; at about half a mile from Wetzikou is a flat swampy plain occupying the bottom of a valley, and evidently in former times the site of what must have been a lake of considerable extent. The piles were discovered about three feet below the surface of the peaty soil, and on the occasion of our visit, these blackened trunks of trees were exposed in an excavation about twenty feet in length by twelve in breadth and half full of peat stained water. I thus had the opportunity of photographing Professor Virchow and the principal members of the Congress standing with Dr. Messikommer at the edge of the newly discovered settlement, and this photograph I am now able to exhibit. After the day

Digitized by Google

at Robenhausen, the remainder of the original programme was carried on at Zürich and in other parts of Switzerland.

It may be mentioned that the number of members of the Congress amounted to 242, and lastly, that many of his old friends had the opportunity of welcoming Professor Sir William Turner, when he joined the Congress for an afternoon at Zürich. W. L. H. DUCKWORTH.

THE ATHENIAN BIRTH CEREMONY OF AMPHIDROMY.

Thanks to the labours especially of lexicographers and scholiasts we know with some degree of exactness the ceremonies which were associated with the birth of Athenian children. The first of these ceremonies, the amphidromy, has been carefully studied by Salomon Reinach in *l'Anthropologie* (1899, x, p. 663). There has been misapprehension as to the details of the ceremony by some authors, but Reinach adopts the view that it consisted in the father running round the family altar in a nude condition and carrying the new-born infant in his arms. The running and the nudity of the runner appear to the author to have no relation to the cult of the domestic altar, nor to the idea of purification by fire. The new-born has need of repose and nurture, hence the couvade; but he should also become as soon as possible an active, enduring, and useful member of society. Thus the rite of amphidromy is performed by a man in the elementary costume of the stadium, who gives an example and, as it were, impulse to the new-born. A. C. H.

RUDE STONE IMPLEMENTS FROM GWALIOR: A CORRECTION.

Mr. F. Swynnerton writes from Simla (29 March, 1900): "I notice in the brief summary of my paper on the Gwalior implements, which appears in the last part of the *Journal* of the Institute" (p. 141 of the present volume) "that it is stated that 'the implements' occur in the gravel of the Sourrka River, and throughout the alluvium on the banks to a height of 20 feet, *and are also found scattered over the surface far from the river.*" The italics indicate what I consider is *not* what I conveyed in my paper, at any rate not what I intended to convey. What I meant to show was that flakes and implements are also found on the surface, but differ from those in the alluvium by being sharp and fresh looking, their age being only indicated by their time-polish. Those from the alluvium are generally much waterworn and discoloured, and when they occur among beds of gravel must be of the same age as the alluvium itself and therefore very much more ancient than the surface implements, more especially if the alluvium is of Pleistocene or even Post-Pleistocene age, I trust you will pardon me for pointing out this difference, for though it is likely enough that some surface-recent-implements may sink a few inches into the ground, they are not to be confounded with those found deep in the alluvium."

A CORRECTION.

Mr. G. Clinch writes as follows (14th December, 1899):—"In the newly issued part of the *Journal of the Anthropological Institute* (N.S. II, p. 123) I see I am reported to have expressed my obligation to Professor Rupert Jones for help in the preparation of the paper I read at the Institute on June 13th last. This is entirely erroneous and rather unfortunate. As a matter of fact, I had never met Professor Jones until the evening of my paper. I cannot conceive how the mistake can have arisen, and I shall be much indebted if you will kindly insert a correction in the next issue of the *Journal*. As far as I can understand the error arose from some

Digitized by Google

confusion between Professor Rupert Jones and Mr. G. W. Smith, who first found the neolithic remains at Millfield, and to whom I did refer with expressions of thanks."

The Editor of the *Journal* desires to express his sincere regret that such an error should inadvertently have been made.

THE HUXLEY MEMORIAL STATUE IN THE NATURAL HISTORY MUSEUM.

The memorial statue of the late Professor T. H. Huxley was formally unveiled on Saturday, April 28th, 1900, by H.R.H. the Prince of Wales, the Honorary President of the Huxley Memorial Committee, and received by him on behalf of the Trustees of the British Museum. The ceremony took place in the Great Hall of the Natural History Museum at South Kensington, where the statue has been placed opposite that of the professor's fellow worker, the late Sir Richard Owen, and to the right of the front entrance to the noble hall of the museum.

The proceedings were opened by Professor E. Ray Lankester, who stated that subscriptions had been received for the Huxley Memorial from every State of Europe, from India and the Colonies, and from the United States of America, amounting in all to more than £3,380. These had been devoted to the objects selected by the Committee, namely, the foundation of a Huxley Medal and the execution of a memorial statue. Three years ago the Committee commissioned and obtained the execution of a medal bearing the portrait of Huxley, and had established its presentation as a distinguished reward in the Royal College of Science. The republication of the complete series of Huxley's scientific memoirs, which was proposed as one of the memorials to be carried out by the Committee, have been undertaken by Messrs. Macmillan, without assistance from the Committee; and two large volumes of these richly-illustrated contributions to science have been already published. The Executive Committee also secured the services of Mr. Onslow Ford, R.A., to execute the statue, which has been regarded as the chief object of the subscriptions. On the completion of the statue, the Trustees of the British Museum agreed to receive it and to place it in the Great Hall of the Natural History Museum.

The memorial statue of Huxley was the expression of the admiration, not only of the English people, but of the whole civilised world, for one who, as discoverer, teacher, writer, and man, must be reckoned among the greatest figures in the records of our age.

Sir JOSEPH HOOKER was deputed by the subscribers to transfer the statue to his Royal Highness, on behalf of the Trustees of the British Museum, with the intent that it should be retained in that noble hall as a companion to the statues of Professor Huxley's distinguished predecessors, Sir Joseph Banks, Mr. Darwin, and Sir Richard Owen. Sir Joseph Banks, Mr. Darwin, and Professor Huxley all entered upon their effective scientific careers by embarking on voyages of circumnavigation for the purpose of discovery and research, under the flag of the Royal Navy. Sir Joseph Banks and Professor Huxley were both Presidents of the Royal Society, and Trustees of the British Museum; and the scientific services of both were so highly estimated by the Crown and their country, that they both attained to the rare honour of being called to seats in the Privy Council.

Sir MICHAEL FOSTER, M.P., added that there were many ways in which Huxley worked for his fellow-men, other than the way of quiet scientific research. The truths with which he enriched science were made known in his written works; but that was a part only of what he did for science. No younger man coming to him for help and guidance ever went away empty; and they all came to him—anatomists,

Digitized by Google

zoologists, geologists, physiologists, botanists, and anthropologists. The biologists of to-day, not of this country alone, but of the whole world of science, forming, as they did, a scattered fleeting monument of that great man, all of them were proud at the unveiling of that visible lasting statue.

The DUKE OF DEVONSHIRE reported that the labours of the Huxley Memorial Committee were terminated, and that the whole of the subscriptions had been received, and came, he believed, from every civilised country in the world. But Professor Huxley's real memorial was to be found, not in that statue only, but in his published writings, and still more in the work which he did in promoting various scientific achievements.

The PRINCE then unveiled the statue, which is of white Carrara marble, and rests on a pedestal of yellow Verona marble, upon which appears in gilt lettering the simple inscription :—" Thomas Henry Huxley. Born May 4th, 1825. Died June 29th, 1895." The figure is of heroic proportions, and represents the Professor seated in an academic chair, and wearing his Doctor's robes. His right hand rests on the side of the chair, and the left hand is clenched, and this attitude, coupled with the expression on the face, which is an admirable likeness, is suggestive of the idea that the statue is meant to represent the Professor as being engaged in some absorbing argument.

THE PROTECTION OF ANCIENT MONUMENTS.

A Bill to amend the Ancient Monuments Protection Act of 1882 has been introduced this session at the instance of the National Trust for Places of Historic Interest. Under the care of Lord Balcarres and Lord Avebury it has passed through the House of Commons, and been read a second time and referred to Committee in the House of Lords.

The object of the Bill is to assimilate the law respecting historic monuments in Great Britain and in Ireland. Thanks to the amending Act passed in 1892, which applies to Ireland only, and to a provision (section 19) of the Local Government (Ireland) Act of last year, in Ireland at this moment either the Commissioners of Public Works or the County Councils can accept the guardianship of any historic monument, whereas, in Great Britain, County Councils outside London have no power with respect to any monument, and the action of Her Majesty's Office of Works under the Act of 1882 is confined to Megalithic remains. It can hardly be suggested that the circumstances of Ireland render exceptional legislation on the subject of historic monuments necessary.

The Irish Board of Works has done most excellent service in the preservation of ancient monuments, and it is to be hoped that both the central and the local authorities in England will make an equally good one of the powers now entrusted to them.

H. B.

SCIENCE ET FOI. L'ANTHROPOLOGIE ET LA SCIENCE SOCIALE. Par Paul Topinard. Paris: Masson, 1900. 8vo, pp. x, 578. (Presented by the Author.)

Science and Faith; or, Man as an Animal, and Man as a Member of Society, with a Discussion on Animal Societies. By Dr. Paul Topinard. Translated from the Author's Manuscript by Thomas J. McCormack. 8vo, pp. 600. Chicago, The Open Court Publishing Company; London, Kegan Paul, 1899.

From the leading, and, it must be added, misleading, title of this most informing and suggestive book, the reader might be led to suppose that it was one of those numerous essays which aim either at the reconciliation of science and religion, or else

Digitized by Google

at showing that the problem is insoluble, like those concerned with the squaring of the circle or the flattening of the earth. But its purport is far different, and the unfortunate title would appear to be due to the fact that the work is the response of one of the most eminent living anthropologists to an invitation issued in 1895 by the editors of *The Monist* to a number of leading European and American thinkers to discuss, from their several standpoints, the main problems of the philosophy of science and of the reconciliation of science and faith. In a somewhat characteristic way the author disposes of the "faith" element by leaving it severely alone, dismissing it with a few words at the end of the volume, to the effect that science and faith are mutually destructive, that the one is knowledge, the other belief, that those who seek to establish a harmony between them "only shatter the latter," because "a faith which is examined and shown to be in accord with facts ceases to be faith."

Even the long sub-title indicates but awkwardly the essential object of the work, which still aims at a "reconciliation," but a reconciliation between man as an animal and man as a social being, due regard being taken of the accepted principles of organic evolution. Thus come again under consideration the difficult questions raised by Mr. Herbert Spencer in his *Data of Ethics*, by Huxley in *Evolution and Ethics*, by Max Nordau, Dr. Paul Carus, Yves Guyot and others on the conflicting interests, rights and duties of the individual and society, involving a certain antagonism between the laws of the cosmic evolution itself. In his preface to the English edition, Mr. McCormack aptly remarks that while the book is essentially a contribution to sociology, it has the rare merit of being written by an original inquirer of the first rank in a branch of science which itself constitutes the groundwork of sociology, and that its conclusions flow from a direct and creative contact with the facts, and not from derivative and secondary theories about those facts. Hence, however little we may feel disposed to agree with many of the inferences, and some are certainly startling, we feel that we are in the hands of a competent seeker after truth, an investigator whose utterances claim all the more respect that even when apparently paradoxical they are still illuminating and always instructive.

This is especially true of the highly original analysis of the *ego*, which is from first to last animalistic, subjective, self-seeking, "ego-centric," the disturbing element in the social system. Then in the course of its normal evolution it acquires higher qualities of a moral order, which become fixed and accumulative by heredity, and to these are added others of a more personal nature, earned, so to say, by each and all for themselves. Thus are evolved the three egos—*animal* ("egoism incarnate"); *ancestral* (bequeathed as "predispositions"); and *individual* (the results of personal experience, early training, association and the like)—on which Dr. Topinard greatly insists, and in which he finds salvation. The first, though powerful, lies dormant; its interference is not obligatory, but optional, acting when its attention is sufficiently aroused, and when it is determined to have full sway. The two other egos, on the contrary, "enter into action mechanically." Combined "they constitute the semi-unconscious ego which answers spontaneously to the demand of the individual when the real or perfectly conscious ego is not moved to intervene. The conduct of man, neglecting the purely medullary reflexes, is the outcome now of the one and now of the other. The conscious ego is the author of reasoned and directly willed acts, the unconscious ego is the source of instinctive and more or less spontaneous acts which are termed impulses."

It was due to Dr. Topinard to let him speak here for himself, and the reader will notice how he glides from the three primary to two secondary egos (the "conscious"

Digitized by Google

and "unconscious" of the schoolmen), and how all are treated almost as separate entities, acting mechanically, spontaneously or even independently under varying conditions. But it will be objected that all are now merged in one, and that the individual, in the old sense of the word, is an irreducible unit, with nothing more than varying and distinguishing tendencies. But the outcome is the same, and all will readily assent to the general inference that the animal ego, the tendencies, the impulses, are capable of control, or direction, so as to bring them into due subordination to the higher (reasoning) faculties.

Here enters the *rôle* of society, of the state, which is society personified, and as such assumes the educational and other functions needed for the well-being both of the whole and of its individual constituents. Thus arise the different current views regarding the duties of society towards the members of the community—communism, collectivism, opportunism on the one hand, *laisser faire*, Mr. Herbert Spencer's individualism on the other. Here the author is full of compromises and apparent contradictions. Except in abnormal cases (idiots, cripples, etc.) non-interference is loudly proclaimed, and after fair play is established, as in duelling, "the rest is left to the valour and skill of the combatants" in the social struggle. Hence free trade, competition between capital and labour and between capitalists themselves, and so forth, because of "the impossibility of reconciling everything. Whatever may be the solution, justice is wrecked on the one side or on the other." A middle course, that is, a compromise, is proposed, as the only escape, and despite his repugnance to non-interference, the author goes the length of advocating the reversion of "bequeathable property to the state," and thus "enable the state to abolish all taxes which now press so heavily on the labour of man in society." The obvious objections to such interference with personal rights, primogeniture, etc., are not touched upon, and in general it may be said that the book is rather overcrowded. So many grave social, political and economic topics are dealt with that justice is done to few, and whether it be due to faulty translation or to over-condensation, there is certainly a lack of clearness in the treatment of several important subjects.

One point, however, is clear enough. Dr. Topinard is hopeful for the future of human societies, and while agreeing with Mr. Herbert Spencer on the necessity of developing altruism and certain hereditary habits, he rejects the profound pessimistic note struck by that great thinker towards the close of his monumental work. Spencer ends in pessimism because he rejects intervention while holding that individualism must result in failure. Topinard is an optimist because he thinks the inherited moral qualities, if properly controlled and directed by society, will suffice to realise a happy future for man. "We find that there is no choice: either we have to abandon ourselves to the *laisser faire*, which is nothing but the cosmic process itself and can only lead to anarchy and the rule of the strongest; or we must, by taking our stand on the nature of man, *direct* the ethical process." In this way alone can the primeval ego-centric be replaced by future altruistic, socio-centric, tendencies.

The foregoing remarks apply exclusively to the English edition, which, as stated on the title page, is a translation of the author's *original manuscript*, and in fact was issued about a year before the appearance of the French volume. It should now be stated that in this volume the original manuscript has been subjected to so many additions, suppressions and changes in the surviving text, that the French edition must be regarded as practically a new work. It is nearly double the size of the English book, of which M. Topinard tells us that it is "a revised and considerably enlarged French re-edition, the fourth part especially being entirely recast," with a

Digitized by Google

new sub-title (*L'Anthropologie et la Science Sociale*), "which answers better to the contents."

It is this fourth part which will now probably attract most attention, and be most severely handled by the critics. In it the ethic process, regarded as a corrective of the cosmic process, is applied, not merely to the individual as a member of society, but to societies themselves taken as ethical units in their inter-relations one with another. A wide scope, still within the legitimate province of anthropology, is here given for the treatment of such international questions as war and peace, free trade and protection, universal suffrage, all the higher functions of the state, diplomacy, and so forth, all studied from the fundamental standpoints of egoism and altruism. The same principles which regulate the conduct of the animal ego, as a social being, are also applicable to communities taken, let us say, as so many individual members of the cosmopolitan body politic. M. Topinard does not put it quite in this way, but that is what it comes to, and he accordingly devotes a special chapter to nations grouped, like the ego, in two categories—"Nations égoistes et nations altruistes." Here of course is an ample field for the play of national sentiment or prejudice, which sometimes runs so strong as to warp the judgment even of the most eminent thinkers. That our author has not escaped from the subtle influences of this feeling is obvious enough, not so much because he groups England amongst the "nations égoistes," as because he supports his views by what must be called a reckless disregard of historic truth. For the moment, of course, he entirely overlooks the altruistic tendencies of the English people in recent times, as shown in their many philanthropic movements, their attitude towards slavery and the slave trade, their societies for the protection of the aborigines, of women and children, and even of dumb beasts, their advocacy of free trade principles tending more than aught else to a universal comity of peoples, and so on. But he goes much further than this *suppressio veri*, and tells us that their very philosophy, arts and science are all alike limited by utilitarian bias, and that in England "ethnography for instance is cultivated because it leads to a knowledge of the natives, and thus prepares the means of turning them to account" (p. 541). We are, in fact, asked by M. Topinard to believe that his illustrious fellow-workers in this field—the Pitt Rivers, Lubbocks, Tylors, Prichards, Lathams, Evanses and a host of others past and present—have given their lives and often their treasure to the study of the peoples of the earth, in order to enable British capitalists to exploit them to their own advantage. Such an unworthy imputation could not be allowed by our Institute to go unchallenged, especially when made by one of its most distinguished Honorary Members.

A. H. KEANE.

MISSION EN CAPPADOCE 1893–1894. Par Ernest Chantre. Paris : Leroux, 1898.

M. Chantre, the author of this book, is well-known for his researches, archæological and anthropological, in the Caucasus, Armenia, and elsewhere. Those who are familiar with his five quarto volumes on the Caucasus will be prepared for the lavish exterior of the present work. It was a happy thought to send an anthropologist rather than a classical antiquarian upon this mission, and it was perhaps also a happy instinct which determined M. Chantre to adopt a novel method of exploration. Few countries have been submitted to so careful a surface study as Asia Minor; in no country has excavation been so slight. Accordingly, M. Chantre devoted himself to a series of small tentative excavations, seven or eight in all, upon the "Euyuks" or "Tells" (artificial mounds) which are so common in this country, *i.e.*, instead of a single exhaustive undertaking, on the scale of those to which we are accustomed in other classical lands, he has been content to carry the roving surface exploration of his

Digitized by Google

predecessors a few feet beneath the ground. The results of these tentative borings are presented in a number of splendid illustrations, and they are in themselves sufficiently valuable to justify the wisdom of the author in pursuing a method, which could hardly be commended in other places, though the future alone can decide whether he has really skimmed the cream or whether the best has sunk yet deeper.

This book embodies the results of two expeditions; in each M. Chantre wisely confined himself to a single province, the district which in pre-Galatian times was known as Kappadokia, the seat, according to Herodotus, of the White Syrians, the cradle, according to some, of the Hittites. Among the latter writers we must number M. Chantre. The book is appropriately dedicated to M. Perrot, and the theory round which the author groups his discoveries is the theory of the "Histoire de l'Art." The Hittite hypothesis is described as "la plus accréditée et celle qui est généralement admise actuellement": almost at the same time as this book was published, an anthropologist not less distinguished for his researches in the same area, I mean Dr. von Luschan, felt obliged to apologise for describing an ancient bow as Hittite—"da aber das 'Modevolk' der Hethiter jetzt so arg in Misscredit gekommen ist." Indeed, the Hittites have probably received less than their rights of late, but of all this M. Chantre gives no hint. On the other hand, his book has all the merits of the work of the Hittologists; he treats his subject with the same genial breadth, regarding nothing as common or unclean, approaching the question from every side. And so even sceptics will find a brilliant light thrown upon the early material culture of Kappadokia, for M. Chantre is not only a fortunate discoverer and a patient observer, but also, as it seems to me, deals very justly and truly with the more important racial and archæological questions at issue in this sphere.

Kappadokia is happily situated between the great salt desert, which fills the centre of Asia Minor, and the more barren mountains of Armenia. It is well watered by the Halys and other rivers, and was famous especially for its horses and its wine. These products and its geographical position brought it into early contact with the great empires of the East, and created a prosperity which has left abiding monuments. Before M. Chantre's expedition we possessed photographs of the early sculptures of the land, several cylinders and seals belonging to the same circle, a few small figurines and plans of two or three important sites, practically nothing more. M. Chantre has discovered several new sites, he has brought back a great deal of pottery, many new seals, figurines, inscriptions, and such a full description of the general appearance of the land, that we are almost able to attempt a distinct valuation of early Kappadokian culture. Pre-Hellenic antiquities here fall into two main divisions. First, there are several traces of the polished stone age, none at present of anything earlier; the form of the axeheads and knives and the material, jade, diorite, obsidian, etc., point immediately to Syria, Armenia, and the Caucasus and thence further East. Only one settlement has been as yet found, but the various places from which M. Chantre obtained axeheads, etc., show how much must still lie buried, some of it in caves perhaps, beneath the rich civilisations which succeeded this. To the first of these later cultures, connected by M. Chantre, as by other savants, English, French, and Italian, with the Hittites of Syria, the bulk of this volume is devoted, and we need not apologise for passing over other periods in a summary fashion. In this "Hittite" civilisation we can already distinguish different epochs, but for the present we may follow our author in treating it roughly as a single whole, and ask to what centuries it is to be referred. Here I must differ from M. Chantre. He is tempted by Hittite theories to carry it back to the fifteenth century B.C. at least, *i.e.*, to the Tel-el-Amarna age in Syria and Egypt and the Mykenæan age in Greece, but although some

Digitized by Google

of his finds may belong to this period, and the "neolithic" remains obviously belong to a much earlier one, the flower of this Kappadokian culture seems to me to fall rather within the centuries 1100–600 B.C. In the first place, we are definitely in the age of iron (p. 67). Secondly, with these remains fibulæ have been found, which we know of at Sendjirli and Ivriz only after Assyrian influence had become powerful. Next, the pottery and the sculpture, though Chantre loosely calls the former Mykenæan, appear to be synchronous rather with the sub-Mykenæan and first Græco-Phœnician art of Cyprus and the sub-Assyrian Chaldic or Vannic art of Armenia. And, lastly, we know that Pterion (Boghazkieui) was a great centre in the time of Crœsus (550 B.C.) and must therefore have been a flourishing town with extensive buildings; how then are these "Hittite" remains, which Chantre assigns to the fifteenth century or earlier, still left not a foot beneath the surface? Arguments from accumulation are often fallacious, but I do not see how this particular fact can be explained, unless we refuse to identify Boghazkieui with Pterion, which few are inclined to do. To the evidence of the new inscriptions I will recur later. With this one criticism I turn to the great positive results of the mission.

M. Chantre traversed two important roads running from north to south and one or two minor cross-roads: upon all of these he found extensive traces of the same civilisation, and I have by me evidence, at present unpublished, of yet additional sites. We have to deal therefore with a culture spread over the whole land, its different centres connected by a regular network of communication, not as was once supposed following two great military roads. A site of this period now consists of a series of large mounds, grouped more or less systematically, but often at a considerable distance from one another and generally in the neighbourhood of a river. At Dedik there are no less than seven of these mounds all belonging to the same circle: M. Chantre suggests that they may represent military stations or simply a group of villages; tumuli[1] they certainly are not. In some cases I venture to suggest they may have arisen out of the Oriental's love of building: every petty monarch must build, even if he could not finish, a new palace for himself on a different site from that of his predecessor, and so a number of mounds are created in the same area, while the common people are throughout living for the most part in a single region near, flying only from their mud and wood houses to the royal citadel in times of danger. For the style of building we must turn to M. Chantre's accounts of Euyuk and Boghazkieui. The citadels were defended in the Oriental fashion by wall within wall, entanglement after entanglement (compare Sendjirli) and the construction is eastern also, sun-dried bricks upon a course or two of large stones. The plans of Kappadokian palaces are chiefly remarkable, because they show no trace at present of the most characteristic of all Syrian Hittite buildings, the "Hilani."

Our knowledge of the life which once stirred in these citadels is based upon the sculpture and smaller works of industry which have still survived. To the sculpture this mission has added nothing of the first importance; far otherwise is it with the pottery, the figurines in bronze and terra cotta, the cylinders, etc. The art of the figurines is, as Chantre says, neither Assyrian nor Greek: so far it may be regarded as individual, though there are distinct Chaldæan and Egyptian echoes in it, much like the faint reminiscences of classical art which survive in our barbaric Norman. But Kappadokian art is in character quite infantile: its products very seldom rise above

[1] A certain tumulus, however, was opened at Schar-Komana (p. 142) with interior buildings, like those in Lydia, Karia and elsewhere. Those in Lydia have been fancifully connected by Professor Körte with Phrygian influence, but for this there is no sufficient evidence, as we cannot take the Phrygian to Karia or to Komana.

Digitized by Google

the rank of antiquarian curiosities. Animals are better treated than men, but they do not compare with Assyrian works. The human figures are realistic and extremely ugly: the "Armenoid" type which they present being characterised by a huge nose, a high but receding forehead and no chin, huge ears magnified by heavy ear-rings. The pottery is equally rude and resembles Mexican or Peruvian ware quite as much as the Mykenæan to which M. Chantre compares it. It differs from the most primitive Cypriot and Rhodian painted ware chiefly in the greater use of free spaces and in the colours—red, white, and black being all applied in thick coats: so far as they can be held to point to any external region, both these characteristics seem to me to point to the earliest post-Mykenæan art of Cyprus. Long spouted jugs and huge pithoi, presumably to contain the famous wine of the country, are the commonest forms.

In truth, however, the importance of Kappadokia is not to be estimated by its achievement in the spheres of art or crafts. The genius of the ancient Kappadokians, as of their descendants the modern Armenians, was pre-eminently mercantile. This is clearly shown by the cuneiform inscriptions which M. Chantre has brought back. These fall into two groups, those from Boghazkieui (Pterion) discovered first by the keen eyes of Madame Chantre who accompanied her husband, and those from Kara Euyuk which the writer identifies with great probability as the earliest site of Cæsarea-Mazaka. The tablets from Boghazkieui, published by M. Alfred Boissier, another member of the mission, are mostly in an unknown tongue, presumably "Hittite"; the few decipherable are in Semitic Assyrian (Sayce), one contains a list of towns, the others appear to be charms, and not much is to be made out of them. "Le plus sage est de rien spécifier," writes Père Scheil, and M. Boissier's arguments for a very early date do not carry conviction. The inscriptions from Kara Euyuk are, like those from Pterion, disappointing in themselves to those who hoped to read off the annals of forgotten monarchs, but they have an importance of their own. For a long time specialists have known of a peculiar type of cuneiform writing, and Mr. Pinches nearly twenty years ago pointed to Kappadokia as the probable provenance of these tablets: this conjecture has now been confirmed and the actual site, from which the majority come, certainly identified. Those which have been deciphered consist mostly of contracts, loans of money (shekels and minæ) with the interest specified, dealings in clothes, lead, etc., the records clearly of a commercial community. The weights and the script point to the East, but we surely need not drag in the name of Sargon of Agade (3800 B.C.) to explain this: we have here a new manifestation of that commercial enterprise which planted Phœnician colonies over three continents, which subsequently in the early middle ages, carried Persian and Arabian merchandise across the steppes of Russia, and which at this day drives Jews and Armenians even across the Atlantic. The great conquerors, Sargon possibly among them, did but follow and consolidate from time to time a trade which existed long before and long after them: we must not press the military side into undue prominence. But is it not a striking thing to find a clumsy pictographic system arising in a land so long familiar with wedge-writing? We might account for it, if we assumed that the traders who used the latter were aliens, living perhaps in Ghettos like the Jews in Mediæval Europe, but we must wait for more evidence. Besides the cuneiform tablets M. Chantre discovered some new Phrygian inscriptions at Pterion. M. de Saussure comments upon these very judiciously: now that we know that Phrygian of some form or another was spoken right across the northern half of Asia Minor, the much debated Thracian "dogma" becomes a matter of secondary importance. The Aryan-Armenian and Phrygian invaders came from the north of the Black Sea, and it does not matter

Digitized by Google

so much whether they entered the land from the east or the west; some entered probably from each side.

Upon the religious or political organisation of Kappadokia at this period M. Chantre's researches have thrown no fresh light. The old Hittite theory of a single great empire does not receive any fresh confirmation, and some of the details by which it was supported are losing their probability. At the same time it appears more likely that the old inhabitants of Pterion were actually called Hittites, and belonged no doubt to the great Armenoid stock. I should be personally inclined to regard the organisation as consisting rather of a number of petty kingdoms or khanates: now one, now another, might exercise a comparatively wide suzerainty, the extent of which another more perfect list of towns will enable us to gauge. Gradually these principalities were first mediatized and then absorbed by the great Eastern Empires, Assyrian, Mede, and Persian, and upon their sites a series of priestdoms arose, until these were finally changed into municipalities by the Romans. We should thus have a history parallel to that of the Jews. The full publication of the results of Messrs. Lehmann and Belck's explorations in Armenia will probably elucidate many of these problems. For the present we must accept as the chief datum of M. Chantre's mission the commercial basis, with its eastward index, on which this early culture was founded.

M. Chantre also publishes some later monuments and a few inscriptions of the Roman and Byzantine period: further sundry geological, zoological, and botanical notes, the latter especially full, will also be found.

The book is written in the agreeable style which we expect from a French savant, and with an amiable freedom from all bitterness and personal recrimination which is beyond praise. J. W. Crowfoot.

Antropometria. By Rudolfo Livi. Milan: Ulrico Hœpli, 1900. Sm. 8vo, pp. 238, with diagrams. Price 2.50 lire. (Presented by the Author.)

Antropometria, by Dr. Livi, is a small volume of 201 pages, dealing with the present state of the science and art of Anthropometry (of which Dr. Livi has shown himself so thorough a master in the two bulky volumes, entitled *Antropometria Militare*, which have made his name a familiar one in the literature of anthropology). In the smaller work now under consideration, the subject is presented under the three headings of, I. Methods; II. Certain Anthropometric Rules; III. Anthropometric Identification; and finally an Appendix will be found to contain useful tables of cephalic and other indices. The following notes will give some idea of the treatment adopted in the consideration of the several methods:—the varieties of measurements are at first treated of under the headings of linear, cubic, and other measures, the various linear dimensions are then reviewed in detail, and the modifying factors, such as the relation between the total height of the intervertebral discs and the stature are indicated; measurements of the limbs, the trunk (sitting height), and the span are then considered, and two methods for measuring the head are discussed; one whereby the measurement is of the nature of a projection, whereas in the other case the absolute maximum is recorded. The dimensions of the nose, and the circumference of the thorax and the abdomen, form the subjects of the ensuing discussions, and this section terminates with instructions for the determination of certain physiological factors, *e.g.*, of weight, of grip, and of the cubic capacity of the thorax.

In the next place comes the treatment of results and the formation of indices; two classes of index are mentioned, consisting of (*a*) indices of the relations of two homologous quantities, *e.g.*, two linear dimensions of a body, and (*b*) indices wherein

Digitized by Google

quantities which are not strictly homologous, *e.g.*, weight and stature, are compared. Descriptive notes on methods of recording the colour and other characters of skin, hair, and eyes, and the shape of the nose constitute the next section of this part of the work.

On page 56 commences a further discussion of the treatment of observations, and in this place the statistical method is fully explained. After the advantages and the fallibility of the study of the simple average obtained from a series of observations has been discussed, the method of seriation is described, and the character and properties of the binomial curve enumerated. Such a curve, remarks the author, was furnished by observations on stature in the department of Emilia. This result being, however, comparatively rare, the various influences to which irregularities in the form of the curve may be ascribed, are then discussed. We may here note that the chief of these appear to the author to be (*a*) paucity of data, and (*b*) an inexactness in measurement, which is sometimes practically unavoidable, depending as it does on the selection which must be exercised by the observer when a measurement actually lies between two divisions on the scale. The value of the form of the curve, as indicative of the character of a population, forms the next subject of discussion, and herein some important sources of error are demonstrated, the particular example selected being again the stature in certain parts of Italy, the investigation being directed to testing the value of the curve as indicative of the presence of two types in a population, and the conclusion arrived at amounting to a demonstration that a certain minimal difference (in the case of stature equal to 12 cm.) must exist between the two mean dimensions, before such a curve can give evidence of the existence of the two types side by side. Moreover, the fallacy underlying the results published by Bertillon on this subject in reference to the population of the department of the Doubs, is exposed in the succeeding section (p. 85). We have not space for more than a reference to methods for facilitating the calculation of averages from long series, on the number of examples considered desirable in order to firmly establish generalisations from observations in detail, and for the graphic representation of results.

Part II gives an insight into the results of such work as is suggested in the foregoing pages: we find, accordingly, generalisations (which follow from the study of individuals) in the form of laws which regulate the rate of growth in stature and in thoracic circumference. A short section deals with the artistic canons of proportion in comparison with the anthropological canon, and we are given some interesting results on the nature of the distribution of the colour of hair and eyes, according to age, physical constitution and locality. In this section, too, will be found some interesting data as to the relation between stature and weight.

Part III deals with anthropometric identification on the principles ordinarily associated with the name of Bertillon, of whose method a *resumé* is given; there will thus be found paragraphs dealing with the necessary measurements, and the precautions to be taken in ensuring accuracy in obtaining them. The form of the ear and the recording of scars or other marks are discussed, and a form of stenography specially adapted to these purposes is indicated. (Such a stenographic method is in constant use under Dr. Garson in our own country.)

Finally, as we have already said, a long table of indices will be found appended to the descriptive part of this work.

We think Dr. Livi is to be congratulated on having successfully condensed the subject of anthropometry into the limits of a pocket book, and we believe that this volume will prove of very great use to practical students of that subject in all countries. We notice that there is evidence that the lack of consistency in the system of

Digitized by Google

measurements adopted in different countries, has caused much unnecessary difficulty in comparing results in time past (we refer especially to the adherence to measurement by feet and inches as contrasted with the metric system), and we hope that this state of affairs will soon be at an end. There is a slight lack of definiteness in describing one or two measurements, and in particular we are not certain as to the particular thoracic circumference (*i.e.*, in relation to the respiratory phases) which should be recorded. But beyond this, there can only be approval of what appears to us to be a thoroughly sound work. W. L. H. D.

STATISTICAL METHODS: WITH SPECIAL REFERENCE TO BIOLOGICAL VARIATION. By C. B. Davenport, Ph.D. New York, John Wiley and Sons. Small 8vo, pp. 148. (Presented by the Publisher.)

Dr. Davenport's work is designed with a view to furthering the statistical study of the data obtained from biological observations of whatever kind. The first part of the book deals with the usual methods of recording results and with the most appropriate forms of illustration. In the section which deals with the records of the dimensions of plane figures, we notice the adoption of a number of terms used originally by botanists as descriptive of the shapes of leaves; these terms are believed to be much more generally applicable, and there is appended to them a list of indices formed similarly to the better known cranial indices (and like these expressive of the relation between two diameters of the object), but remarkable for the lack of grace which characterises their distinctive names, though it must be admitted that compensation is made by the consistency of the proposed nomenclature (*e.g.*, Index of Truncatedness, Index of Retuseness, etc.).

In the second chapter, instruction is given in the methods of seriation and in the graphic representation of results in the form of a "frequency polygon." A classification of curves is provided in the next chapter, and instructions are laid down for referring the constructed curve to its proper class. Chapter IV deals with correlation in variability; a method for determining the degree of correlation of two characters (as denoted by the value of the "coefficient of correlation") is described, and the application of this to the study of heredity is indicated.

Further applications of the preceding methods to the elucidation of other biological problems are suggested in Chapter V, and the work ends with a number of tables (logarithmic, etc.) for purposes of reference.

While not originally designed for special application to anthropological studies, it is becoming evident that the use of elaborate statistical methods will become more general in that science than has hitherto (with certain notable exceptions, *e.g.*, in the work of Galton, Stieda, *et alii*) been the case. There exists, however, the difficulty that the adequate treatment of results by the means indicated in *Statistical Methods* presupposes a degree of mathematical proficiency which is hardly attained to by the average student of biology at the present time; so that these methods of dealing with data are likely to possess lighter claims on the interest of the student than the work of observing and recording. W. L. H. D.

OCCASIONAL PAPERS OF THE BERNICE PAUAHI BISHOP MUSEUM OF POLYNESIAN ETHNOLOGY AND NATURAL HISTORY. Vol. I, No. 1, Director's Report. Honolulu, 1898. 72 pp.

In these pages Professor Brigham gives an account of a tour of inspection among the Ethnographical and Natural History Museums of the Continent, the United States and Australia, in the year 1896. His chief objects were to discover what material

Digitized by Google

from the Pacific Islands is preserved in the various cities he visited, and how this material was exhibited. A large proportion of the book is thus taken up with the enumeration of specimens, and this part need not here detain us. Special interest attaches to the criticisms which Professor Brigham has to make of the different establishments which he passes in review. Of the European Museums, that at Berlin naturally receives the highest praise, both for its extent and for its educational value; the Australian Museums are also deservedly commended. In speaking of our own national collections in London the writer is not unnaturally severe: one long gallery in a gloomy building subject to a London atmosphere is indeed inadequate to the needs of a maritime nation. "It is unfortunate for ethnology" says Professor Brigham "that so rich a nation as England should not find the means to build a palace worthy of the treasures her explorers have brought home, which are now laid aside for want of room in a museum where ethnology is of very secondary importance." A word of praise is given both to the Pitt-Rivers Museum at Oxford and the Fijian Collections at Cambridge, but the author laments the scattering of the material in different centres which enhances the difficulties of students. Professor Brigham returned from his voyage convinced that American Museums are better installed than any others, the American Museum of Natural History at New York being almost beyond competition. He shows a legitimate pride in the arrangements and scientific advantages of his own museum, which was visited two years ago by a Fellow of the Institute and found to be all that its Director claims for it, and more. One cannot fail to be profoundly impressed by the energy and the resource which has produced such great results in the far Pacific. The American people are showing an interest in ethnology which is making even the Germans look to their laurels, and which should make us doubly deplore the apathy and indifference which still reigns in the British Islands. The report contains a number of interesting reproductions of ethnographical specimens, and views of the Bishop Museum, and the Museums of Berlin and Vienna.

O. M. D.

THE ONEIDA COMMUNITY. A Record of an attempt to carry out the principles of Christian Unselfishness and Scientific Race-Improvement. By Allan Estlake. Member of the Oneida Community. London: George Redway, 1900.

In most cases our knowledge of the history of Societies like those of the Mormons, the Shakers, or the Oneida Community is derived from writers like the late Hepworth Dixon, whose "New America," though written in a spirit so sympathetic as to bring forth some playful remarks thereon from Matthew Arnold in "Anarchy and Culture," was yet the work of an outsider. In this instance the author is a man convinced that the Oneida experiment is "the most valuable enterprise which has ever been undertaken since the foundation of Christianity," and that of the messengers of Christ John H. Noyes was the most important and central.

As a narrative this book is somewhat wanting in arrangement. Its interest lies in its presentation of the doctrines and practices of the Oneida Community from a staunch believer's point of view. The founder, John H. Noyes, originated the sect of Perfectionists, or Bible Communists, at Putney in Vermont in the year 1838. Leaving Putney in 1847, about 50 men of the sect, with as many women and children, settled at Oneida Creek. For thirty years the Community prospered in its new home. Then, in 1879, in deference to the public opinion of the people around them, they, on the advice of their founder, abandoned their communistic marriage system. In 1880 their communistic ownership of property was also given up, and Mr. Estlake tells us

Digitized by Google

that "the joint stock company (Oneida Community, Limited) which has succeeded to the businesses of the Oneida Community, is still in existence and prospering greatly."

We learn that in abandoning the practice of what outsiders called "free-love," but the Community "complex marriage," Mr. Noyes proposed a return "not to the *principle* but to the *practice* of monogamic marriage." Our author remarks that Noyes felt that "if a man cannot love a woman and be happy in seeing her loved by others, he is a selfish man, and his place is with the potsherds of the earth. There is no place for such in the Kingdom of Heaven." The departure from monogamy had been intended as a "dividing line between selfishness and unselfishness," not as an indulgence in licentious freedom. But we learn that many persons "knew so little about themselves, that while their great anxiety had been lest their wives should be unable to adapt themselves to the new relations, it turned out that they were themselves the first to become jealous and dissatisfied with the circumstances they had pleaded so hard and so long to get into." Then the extraordinary development of Criticism as a leading institution of the Community may have largely contributed to a backsliding towards monogamy. Our author remarks that only a man very earnestly desiring to improve his character welcomes criticism, and adds that "Criticism revealed all secrets, so that nobody was tormented with a skeleton in the closet; even lover's secrets that are usually considered too private for the light were freely considered in criticisms if they contained anything that shunned the light of truth . . . . Many well-meaning people, with the utmost consideration for others and the best of intentions, who through ignorance or innate obtuseness were unable to adapt their ways to the sensibilities of others, learned through criticism, much to their surprise and gratification, what they could not have acquired in any other way."

Thus it happened that "Many were ready to give up everything but the petty authority that they had been accustomed to exercise in their family circles; one may have been ready to have an enlargement of affectional happiness himself but could not concede the same freedom to other members of his family. Another could not cease to be the little autocrat and listen to his wife while, with others, she joined in criticising him."

Tobacco was tabooed in the Community in any form. Women did not like it as the "flavour of tobacco in any form was not conducive to the magnetism of a kiss." The alternative, that women also should smoke, was regarded as "not to be tolerated." Thus it becomes obvious that to many male members of the Community a return to monogamy would seem to have its compensation. For, as our author remarks (p. 42), "Criticism, which was the bulwark against the influx of selfishness, would become unavailable with the introduction of worldly marriage, for the wife would no longer feel free to criticise her husband publicly, nor would she tolerate his being criticised by others. The difficulties of the changed conditions may be enlarged upon almost indefinitely; suffice it to say that criticism must die when worldly marriage begins, and that it ceased under the changed conditions of the Oneida Community."

We do not gather from Mr. Estlake that the women of the Community were prominent in opposing the change from "complex marriage" to monogamy, though the first-named state "constituted each male member of the family husband of all the females, and each female the wife of every man," and women were permitted, and almost expected, to take the initiative in love-making. We have the following attractive picture of the complex marriage period:—

"Where women were left free to accept or decline approaches from men, life became a state of continuous courtship, both seeking to attract each other by

Digitized by Google

commending themselves to the highest ideal of the other by loyalty to truth and to community principles" (p. 90).

Possibly, however, the women who more or less appreciated the above state of things when the Community was founded, felt, twenty to thirty years later, that more was to be said for monogamy than they had once thought possible. It would seem indeed probable—to an outsider—that, as a rule, the privileges of complex marriage would be more appreciated by the elderly men than by the elderly women, where they were not a matter of indifference or of aversion to both.

Mr. Estlake thinks that the history of the Oneida Community will one day be studied "as a handbook and guide to communism, and the pages of history will portray John H. Noyes as a prophet of the new dispensation." No communistic scheme can succeed, he remarks, in which selfishness in any form appears, and he adds that:—"The sexual relationship of communists being pregnant with influences that are antagonistic to the first principle of communism, it should be one of the first subjects to be most carefully canvassed and satisfactorily disposed of before attempting to launch a socialistic enterprise." Those who do not "fearlessly follow the sexual problem to its logical solution deceive themselves and their followers while seeking to form a community with communism left out."

In short, this book is of unquestionable interest to anthropologists as the honest account of a thorough believer in the soundness of the principles on which the Oneida Community was originally based. This gives it a value of a somewhat rare kind, and one which the work of a much abler outsider could not possess.

T. V. H.

THE ROYAL PUBLIC LIBRARY OF MALTA: a brochure by Dr. A. A. Caruana. Printed by authority of H.E. the Governor. Fcp. 15 pp., price 3*d*. Malta Government Printing Office, 1898. (Presented by the Author.)

This is a brief account of the historic buildings and collections of the Royal Public Library of Malta, which was founded in 1555, and continuously developed under the administration of the Order of St. John. The following extracts are characteristic: from 1800—the date of the British Occupation—to 1812, "the new edifice," built for the library and museum by the Knights of St. John, "was employed as a public coffee room for the British Officers," while in 1809 "several thousand volumes, belonging to that valuable collection, were rotting from want of accommodation" (p. 7), with the result that whereas in 1798 there were 60,000 volumes, there were only 30,000 left when Sir Henry Oakes, the Civil Commissioner, succeeded in installing them in their own building in 1812. The present collection contains some 53,000 volumes, including a considerable number of manuscripts. There is an interesting collection of local antiquities which is well worth a visit, as it includes the results of excavation in the prehistoric buildings of Hagiar Kim, etc., and the contents of a number of tombs of prehistoric, Græco-Phœnician, Roman, and Romano-Christian periods.

J. L. M.

ANCIENT PAGAN TOMBS AND CHRISTIAN CEMETERIES IN THE ISLANDS OF MALTA, explored and surveyed from the year 1881 to the year 1897; by Dr. A. A. Caruana (late Director of Education and Librarian). Printed by order of H.E. the Governor. Fcp. 4to, pp. 129, many lithographed plates, price 8*s*. Malta Government Printing Office, 1898. (Presented by H.M. Secretary of State for the Colonies.)

Dr. Caruana is well known for the devoted study which he has given to the antiquities of the Maltese Islands; and he is greatly to be congratulated both on the appearance of these monographs, in which the results of some part of his work are

Digitized by Google

made accessible, and on the public-spirited way in which the Government of Malta has shown its appreciation of his services, both to anthropologists and archæologists at large, and to the education of his own countrymen.

The soft limestone of which Malta consists lends itself admirably to the excavation of chamber tombs; and though as much tomb-digging has gone on here, even in antiquity, as anywhere else in the Mediterranean, Dr. Caruana has been able to secure for the Malta Museum the contents of a number of unrifled tombs, as well as a most elaborate and careful series of ground plans and sections, which are here published in admirable lithographed plates. A number of types of "Phœnician" tombs are given, varying from a simple grave of tiles (Plate IV, 3)—in one instance a body is buried in two large clay jars set mouth to mouth—to the common cave-tomb closed by a slab, and approached either by a short *dromos*, or by a vertical shaft with or without steps or footholds: in one instance (Plate II, 4) the shaft comes down through the roof of the chamber. Chambers clustered round a central vestibule are not uncommon, and often bear, in ground plan, a striking resemblance to the arrangement of the megalithic monuments of Hagiar Kim, Mnaidra, and Gigantea. The bodies lie either on a shelf, or in stone coffins; or in a grave sunk in the floor; or simply on the ground, as in Cyprus. In this "Phœnician" class Dr. Caruana includes the great cliff-face necropolis of Ben Gemma (Plate VIII), which was recklessly rifled in 1874; he does not give any account of the fragments of their contents which may still be picked up on the site, and which suggest that some at all events are of the same type as the *tombe a fenestre* of Sicily, and the cave-tombs of Chaouach and other Tunisian sites, and therefore of indigenous type, and probably of earlier date than the Phœnician settlement in Malta.

The "Græco-Roman" tombs follow the same general plan as the "Phœnician"; but are, as elsewhere, more regularly cut, and better finished. Plate XIII gives a good example, with its funeral equipment intact. There is a curious series of bell-shaped chambers, with an orifice in the summit of each (Plates XV, XVI), the type of which can hardly be that of a tomb originally. They look more like a common type of cistern or store-house, which again may be paralleled on the African coast opposite. But the three-storied example on Plate XVI was certainly used for burial.

The Christian tombs (among which probably are included some late Roman examples), develop out of the clustered-chamber type into regular catacombs with narrow-resting places and columbaria. Of these the best examples are found in and near the Roman and mediæval capital of Melita, at Citta Vecchia or Rabato (of which a useful plan is given on Plate XXI), and wander under the town for considerable distances. A few inscriptions and traces of painting occur, and are duly recorded by Dr. Caruana.

The only matter for regret is that so few detailed descriptions are given of objects found in the various classes of tombs. It is always exceedingly difficult to date rock tombs merely by their form; and a few well-drawn—or better, photographed—examples of the pottery and other tomb-furniture would have been invaluable. But perhaps we may be allowed to hope that this aid is only postponed, and that Dr. Caruana will some time be able to give us a companion volume on the contents of the Valetta Museum. J. L. M.

THE HARMONIC STRUCTURE OF INDIAN MUSIC. By John Comfort Fillmore. New York: G. P. Putnam's Sons, 1899.

This pamphlet is an ingenious and interesting defence of a wholly untenable position. It is written with evident conviction; it is supported by examples drawn

Digitized by Google

from ten years' study of the North American Indians; it deserves all the consideration which belongs to first-hand evidence; but, unfortunately, the interpretation of the evidence is not borne out by the known facts of Musical History and Ethnology.

Professor Fillmore's thesis may be stated in the following propositions (see pp. 304, 315, 318): (*a*) That "Folk-melody is always and everywhere harmonic melody"; (*b*) That "the first harmonics to be displayed are those of the tonic and its chord"; (*c*) That the primitive scale, all the world over, was the pentatonic, and that from this, by natural growth, our diatonic scale was developed; (*d*) That "in every stage of its development the harmonic sense is the determining factor in the production of folk-melody," the harmonies being those proper to our diatonic major and minor scales; (*e*) That "in short there is only one kind of music in the world."

We fear that every one of these propositions is demonstrably incorrect. Our diatonic scale is a highly artificial and civilised product: it is derived not from the pentatonic but from the Greek tetrachord, and every stage in its development is historically traceable. There is no evidence that the "tonic chord" had ever been heard of until long after our scale was established: there is conclusive evidence that the Greeks at any rate knew nothing about it. Many known scales are not diatonic at all, *e.g.*, the Persian; some, *e.g.*, the Siamese, do not contain the perfect fifth which is necessary to Professor Fillmore's "first harmony": others, like the two Javese gamelans, contain no single interval on which an intelligible harmonic system could be based. Indeed, the harmonic sense is so far from being the determining factor in the production of folk-melody, that even among European nations it is a late growth, and among many non-European nations it is absent altogether.

In his citation of Indian folk-songs Professor Fillmore has implicitly surrendered his own case. The harmonic treatment of one example (pp. 309, 310) requires five modulations in twelve bars—modulations being virtually unknown in Europe three hundred years ago. Another (p. 309) contains a note foreign to the diatonic scale which has to be explained on a system so elaborate that it could not have existed in civilised music before the time of J. S. Bach. That "the Indian prefers the harmonised to the unharmonised version of his songs" is no conclusive evidence. Experience has shown that this is true of other primitive nations, and that the pleasure derived from the mere fulness of sound, is in no way impaired if the harmonies are manifestly incorrect, or even if they are in a different key from the tune. We have seen an audience in Sarajevo listening in rapt delight to a folk-song of which the melody was played in F and the bass in B♭. And in any case it would appear incredible that the Indians should recognise, or specially prefer to their own music, the unprepared sevenths and thirteenths with which some of Professor Fillmore's examples are harmonised. If their acceptance of these was due to any intelligent selection they must be wholly exceptional among primitive nations. Indeed, the whole case for the primitive harmonic sense must be regarded, at best, as not proven. A far stronger body of testimony is needed before we can disallow an induction that has been established on facts from almost every quarter of the world.

W. H. H.

TEXT-BOOK OF PALÆONTOLOGY. By Karl A. von Zittel. Translated and edited by Charles R. Eastman, Ph.D. Vol. I, with 1,476 woodcuts. London: Macmillan and Co., 1900. 8vo, pp. 706. (Presented by the Publishers.)

Soon after Professor von Zittel had completed his magnificent *Handbuch der Palæontologie* he prepared a smaller work giving, in a single volume, an admirable

Digitized by Google

epitome of the subject. This appeared, in 1895, under the title of *Grundzüge der Palæontologie.* Dr. Eastman, of Harvard, at one time a student under von Zittel, at Munich, undertook the preparation of an English edition of this excellent work; but he soon modified his original plan of a literal translation, and was led, with the author's consent, to enlarge the scope of the work and to remodel a large part of it. In this labour he has been assisted by a staff of specialists. But it has not been possible for the editor to secure uniformity in the work of his contributors; some being content to adhere to the original, whilst others have taken great liberties with the text, and have introduced radical departures from the primitive plan. Hence, some chapters of the translation follow closely the German, whereas others have been completely recast; thus, the section on the Cephalopoda has been rewritten by Professor Hyatt, and though his views and those of von Zittel are sometimes at variance the German professor has graciously bowed to the American authority.

The present volume, extending to 706 pages, deals only with the Invertebrata, and the student of anthropology will anxiously await the appearance of the second volume, which will be devoted to the Vertebrata. Meanwhile, he may read with advantage the admirable introductory chapter dealing with the scope of Palæontology and its relations, on the one hand to Geology and on the other to Biology. Professor von Zittel's work is admitted to be our best guide to a knowledge of the varied forms of life which existed on our planet in the past. F. W. R.

The Cephalic Index. By Dr. Franz Boas. (Reprinted from the *American Anthropologist*, N.S., I. July, 1899, pp. 448–461.) (Presented by the Author.)

In this paper the author discusses the biological significance of the cephalic index; he finds it greatly influenced by causes other than the length and breadth of the head. Thus it appears that the length of the head is more influenced by stature than the breadth of the head. "Correlation between breadth of face and horizontal diameters of the head shows the transversal diameters to be very closely correlated, while the length of the head is more closely correlated with height of face." The influence of cranial capacity on the form of the skull is next considered, and the author concludes that Virchow's law of compensation applies equally to normal as well as to pathological skulls. The correlation between the length and breadth of the skull is not an expression of a biological relation between the two measurements, but an effect of the changes which both undergo when the capacity of the skull increases or decreases. "It follows from these considerations that while the cephalic index is a convenient practical expression of the form of the head, it does not express any important anatomic relation. On the other hand, the relation between capacity and head diameters is found to be of fundamental importance, and among these the relation between transversal diameters and capacity is most significant. Since in measurements on the living we are unable to measure the capacity of the head, it is necessary to find a substitute. It would seem that circumferences are the most available means for judging cranial size. Therefore such circumferences should be included in all anthropometrical schedules designed to investigate racial characters.

A. T.

A Study of the Normal Tibia. By Ales Hrdlička. Reprinted from the *Proceedings of the Association of American Anatomists.* XI Session. New York City. Dec. 1898. 6 pp. (Presented by the Author.)

The material at the disposal of the author comprised 2,000 bones of whites, 80 of negroes and 520 of North and Central American Indians. The principal differences

Digitized by Google

observed were those affecting the form of the shaft, these the author tabulates under six varieties, and promises further information regarding the significance of the various shapes, though he admits that the enquiry is beset with difficulties, for he found equal variety in the form of the bone in women and young adults, and met with quite as many different types on weak as in strongly developed bones. Advanced platycnemy was very rare in both the whites and negroes, but frequent in the Indians, whilst a pronounced backward inclination of the head is common in Mexican Indians.

A. T.

DESCRIPTION OF AN ANCIENT AMERICAN SKELETON FROM THE VALLEY OF MEXICO; with special reference to Supernumerary and Bicipital Ribs in Man. By Ales Hrdlička. (Reprinted from *Bull. Am. Mus.* N.H. xii. 81–107. New York. May, 1899.) (Presented by the Author.)

The skeleton which Dr. Hrdlička describes was discovered about three metres from the surface in an adobe deposit at St. Simon Tonaquac, a small suburb of the city of Mexico. The principal points of interest in connection with it were the occurrence of a pair of supernumerary ribs, the very high relative lengths of the bones of his forearm and leg, and the peculiarity of the lower jaw. The cranial capacity was small, the humeri were pierced at the olecranon fossæ, and the head and articular facets of the tibiæ were much recurved. After discussing the significance of these structural features, the author admits that in the present state of our knowledge it is impossible to say whether the skeleton be that of a Toltec or an Aztec. A. T.

A BIBLIOGRAPHY OF PHYSICAL ANTHROPOLOGY.

Jahresberichte der Anatomie und Entwicklungsgeschichte. By Professor Dr. Emil Schmidt. *Physische Anthropologie.* 1898. XII. pp. 567–646. (Presented by the Author.)

All who work at the subject of physical anthropology owe a debt of gratitude to Professor Schmidt, for here not only do we find a marvellously complete reference to the articles, to the number of 542, which have appeared during the year, but we are also furnished with a series of abstracts which practically embody all the recent advances made in this subject. A. T.

KATHETOMETRY. *Weitere Kathetometrische Studien.* Von Professor Dr. Moriz Benedikt. *Archiv. f. Anat. u. Phys.* (*Anat. Abth.* 1899) 353–388. (Presented by the Author.)

This paper embodies the results obtained by the author through the use of a modification of the stereograph. The subjects particularly dealt with refer to the growth and form of the tibia and femur, with especial reference to the movements of the knee and hip joints. A. T.

ON SOME FLINT IMPLEMENTS, FOUND IN THE GLACIAL DEPOSITS OF CHESHIRE AND NORTH WALES. By Joseph Lomas, F.G.S. 8vo, pp. 14, with one photographic plate. Liverpool. Thos. Brakell, Ltd., 1899. (Presented by the Author.)

This paper was read before the Historic Society of Lancashire and Cheshire, and the Liverpool Geological and Biological Societies, on December 9th, 1898. It contains an account of chipped flints found (1) at Spital Sandpit Cheshire, (2) at Prenton, near Birkenhead, (3) at Moel Tryfaen, N. Wales; and two opinions of their origin. Sir John Evans is reported as saying—"No. 7 may be artificial. Of the others, Nos. 2 and 3 look the most possible; but the signs are not such as can confidently be

Digitized by Google

relied on. If man existed in pre-glacial times in Britain, it is, I think, probable that his tools would have been of larger proportions." Mr. W. J. Lewis-Abbott, after a detailed discussion of each fracture, sums up in favour of an artificial origin. The photographic plate gives two views of No. 7, above quoted, two of No. 2, and one each of No. 3 and No. 1. J. L. M.

EXPLORATIONS IN PATAGONIA. By Dr. F. P. Moreno. 8vo. pp. 54: map and photographic views, reprinted from the *Geographical Journal*, September–October, 1899. (Presented by the Author.)

A detailed sketch of the physical geography of Patagonia by a pre-eminent authority. Pages 46–47 (= *G. J.*, XIV, 370–2) contain notes on the population. "The whole of this vast region is very thinly peopled: even the Indians, never very numerous, are dying out, and colonization has not progressed as it should have done. . . . Here and there the traveller finds a Tehuel chian, or Gennahen encampment, but natives of pure race are now very scarce. It would be difficult to gather together fifty-five Tehuelches, and the number of Gennahens cannot be much greater. The remaining native population is composed of the ancient Araucanian race, or a mixture of the three races. But these do not represent the only type of human beings which have dwelt in Patagonia. In ancient burial-places I have collected the remains of other—now totally disappeared—races, which were quite distinct from the present ones, but which greatly resembled the primitive types met with more to the north, in the Chaco and in Brazil, while others strongly resemble some Pacific races, possessing ethnic characteristics which have not been observed in South America. Among these remains, every type of artificial deformity of the skull hitherto known is found; while to-day the natives only preserve the occipital deformation. This variety of extinct human types should of itself form the subject of a serious investigation. Patagonia is the extremity of the American continent, and has been the last refuge of more than one people in their forced exodus." May we perhaps hope that Dr. Moreno, who is an Honorary Fellow of this Institute, may find the opportunity of continuing and publishing the valuable observations which he has thus briefly summarized. J. L. M.

A PRELIMINARY REVISION OF THE EVIDENCE RELATING TO AURIFEROUS GRAVEL MAN IN CALIFORNIA. By W. H. Holmes. 8vo. Reprinted from the *American Anthropologist*, N.S. L. pp. 108–121 and 614–645, with plates and diagrams.

These two papers review critically and in great detail the evidence now available (1) for the reported discovery, at various times, of implements, etc., of advanced workmanship in the auriferous gravels of Tertiary Age in California, (2) for the discovery and subsequent history of the well-known "Calavera skull" from the same district. The case *against* the view that the objects in question were really found in the auriferous gravels is put with great skill and apparent cogency; and we shall await with interest the reply of those who hold the other opinion. J. L. M.

VINLAND AND ITS RUINS. Some of the evidences that Northmen were in Massachusetts in pre-Columbian days. By Cornelia Horsford (reprint from *Appleton's Popular Science Monthly*, Dec. 1899. Presented by the Author).

Miss Horsford considers that Vinland, the Wineland of the first European discoverers of North America, was round the harbour on which Boston now stands, and prefers this site to Rafn's chosen position of Mount Hope Bay, and to others that might be suggested by the texts of the two versions of the discovery that Icelandic

Digitized by Google

MSS. have preserved for us. She next proceeds to compare the results of recent excavations in Iceland with the results of explorations made at Cambridge, Mass., near Gerry's landing; and she adduces the testimony of Waltyr Gudmundson and Thorsteinn Erlingsson, experienced Icelandic antiquaries, to the likeness between the Cambridge remains of houses and paths and the remains of old houses and paths in Iceland. They agree that, as far as regards "construction, both the house . . . and the two paths . . . could be of Scandinavian origin," and says Thorsteinn Erlingsson "what is left of the walls here nobody could distinguish from Icelandic walls" . . . "though some of the stones seem rather small." That neither of those gentlemen will say absolutely "This is an Icelandic house!" is owing to the fact that "pieces of pottery and bricks have been found beneath the stones which had fallen down from the walls and on the floor itself," and that bricks have been found between the stones that form the paths, bits of evidence that "seem rather to speak for a post-Columbian origin." Miss Horsford considers that the characteristic walling of stones and turf, the peculiar paving, resembling the Icelandic *sjávar gata* (quite unlike those found at Fort Wm. Henry near Pennequid, Maine, and many other places in the New England States), make strong evidence for her theory: the presence of the brick fragments in house floors and paths may be accounted for by the presence of cattle that have trodden them in, and she further points out that the square cooking-place discovered here is entirely different from the round Indian firehearth, and entirely like those discovered in Iceland. Her thesis is not proven, but there is nothing impossible in it as far as it goes. The illustrations she gives, processed from photographs, are helpful. F. York Powell.

Hawaii Nei. By Mabel C. Craft. 8vo. Price 6*s*. San Francisco: published by William Doxey, 1899.

This work is the outcome of a lady's visit to the Hawaiian Islands "on the eve and immediately following" the formal transfer of the group to the United States. A few chapters have been abridged from contributions to the American press. The writer may be said to "hold a brief" for the monarchy as against annexation, which she compares to a successful Jameson raid. *Hawaii Nei* makes an excellent sequel to Mr. C. G. Nottage's *In search of a Climate*. In addition to this vexed question, Miss Craft gives a very interesting account of the islands and of the natives, ending up with a chapter on "Legends and Folk-Lore." The work is well illustrated with photographic reproductions of ethnographical interest. J. E. P.

A Dictionary of the Pathan Tribes of the North-West Frontier of India. Calcutta, 1899. Small 8vo.

This useful little book, labelled "Political and Secret Department," has found its way from the India Office to the Anthropological Institute.

No important secrets are, however, contained in it. It is simply a reference to the innumerable clans, tribes, and tribal sub-divisions of the great Pathan community of the North-West Indian frontier, with a map to show where to locate the principal sections into which they are divided.

To the ordinary reader of Indian frontier current history tribal designations must be a severe stumbling block in the way of intelligent comprehension of the course of events; and a dictionary of this nature, if it is to be placed in the hands of the public, will do much to remove the difficulty. But there is no reason why it should not be made more comprehensive. The Pathan, or Pukhtu-speaking communities include

Digitized by Google

peoples of most diverse nationalities and wide-spread origins; and it would not be difficult to differentiate between them—to separate those of Afghan from those of non-Afghan origin, for instance. In some cases this is attempted. The Mohmands are relegated to the "pure Afghan" communities, but there is no record about the Tusupzais, who are a larger tribe and who claim to be as pure Afghan as the Mohmands. A few lines about the Afghans generally would have been useful, but nothing is said about them as a distinct nationality. On the other hand, the Ghilzais are called "a large and wide-spread Afghan tribe;" with which designation no modern authority will agree. The Ghilzais are of Turkish extraction. It is impossible to apply the name "Afghan" to the dwellers within the political boundaries of Afghanistan—for there are large numbers of Duranis and of Mohmands who live on the British side of the boundary, to say nothing of the Tusupzais.

As regards the numbers which are quoted after the names of the clans, it is difficult to say whether they refer to the fighting strength, or to the entire population. What does (15) mean after Ghazizai for instance? Or (10) after Kasam Khel? As a Quarter-Master-General's publication it probably refers to the fighting strength of the tribe or section; and yet the numbers in many cases appear to be impossibly large; as in the case of the Afridis, who certainly cannot maintain a population which would put 26,000 fighting men into the field within the restricted areas which they cultivate.

The dictionary is hardly compiled on scientific principles; still it is the first of its sort which has been made public, and we hope it is the precursor of a larger and more complete work of the same nature. It is only lately that we have acquired sufficient knowledge of the frontier tribes to justify any attempt at classification; so that we must not expect too much. A similar dictionary of the Parsiwan or Persian speaking tribes (which would include all Baluchistan) would be almost equally valuable. T. H. H.

On the Orientation of Temples, being the Results of some Observations taken in Greece and Sicily, in the month of May, 1898, by F. C. Penrose, M.A., F.R.S., F.R.I.B.A., etc. Proc. Roy. Soc., lxc, pp. 370–375 (1899).

This paper is supplementary to those which Mr. Penrose contributed to *Philosophical Transactions*, vol. clxxiv, pp. 805–834 (1893), and vol. cxc, pp. 43–65 (1897). Arguing on the assumption that the axis of each temple was made to point to the rising sun on the day of the principal function in the temple, and that a date was chosen for that function when the heliacal rising or morning setting of a star, also in a line with the axis of the temple, might serve to give warning of the Sun's approach, he has attempted to fix the dates of foundation of a number of Greek Temples, and also the time of year when the principal religious function took place in each. The present paper begins by setting forth the results of some confirmations or corrections of the author's former observations. The only case in which these necessitate a material alteration in his conclusions is that of the Temple attributed to Juno Lucina, at Girgenti, which he had assigned to 690 B.C., but now assigns to 490 B.C. This is followed by a calculation of the date of the Temple of Neptune, at Calauria, and by some details of other calculations of which the author had hitherto published only the results. Finally he attempts to fix the exact dates of foundation of the Theseum and the new Erechtheum at Athens, and to confirm the traditional name of the former by finding a correspondence between the dates astronomically discovered for the principal functions in those temples, and the calendar dates of the festivals of the Thesea and the Niceteria.

Digitized by Google

The chief difficulty in the way of accepting Mr. Penrose's conclusions is the want of evidence to support his fundamental assumption. The calculations have been made with great care, and one cannot praise the author too highly for the pains he has taken to collect local data, such as the altitude of the visible horizon and the conditions of visibility of different stars in the climates of Greece and Italy, data which are of the highest importance in such nice calculations. The only material error in the calculations appears to be in the conversion of the Sun's declination and right ascension into a calendar date, where Mr. Penrose would appear to have followed some recent almanack without making the necessary corrections for a distant date. His dates in the fifth century before Christ are in consequence from six to eight days too early, and the synchronisms between the astronomical and calendar dates of the festivals do not therefore hold for the years which he suggests. Elsewhere this error would appear to be of no importance. J. K. F.

Descripcion Historia y Exposicion del Codice Pictorico de los Antiguos Nauas que se conserva en la Biblioteca de la Cámara de Diputados de Paris, por Francisco del Paso y Troncoso, Director del Museo Nacional de México. Florence, 1898. 368 pp. 8vo. (Presented by the Author.)

In this work Señor F. del Paso y Troncoso gives a commentary of a singularly interesting pictorial MS. on agave-paper preserved in the library of the Chamber of Deputies at Paris. The manuscript is a ceremonial calendar, treating of the feasts proper to different seasons of the year, and Señor Troncoso discusses each of the thirty-seven pages in detail. His commentary will be read with additional interest as soon as the reproduction now promised us has been issued. As a compliment to the learned Director of the Trocadéro, Señor del Troncoso proposes to name the MS. the Codex Hamy. In some interesting prefatory remarks, the author relates the history of the MS. which was formerly in the Escurial and was probably removed to France in the early years of the nineteenth century. About 1780 it was discovered by the Rev. Mr. Waddilove, Chaplain of the British Embassy at Madrid; he communicated his discovery to the historian Robertson, who noticed it in one of the later editions of his *History of America*. Señor Troncoso suggests that the communications of Waddilove may still exist among the papers of Robertson, and that if this is the case, further information as to the facts of the discovery may yet be forthcoming. He commends the search to any of our countrymen who are interested in the study of American Antiquities. O. M. D.

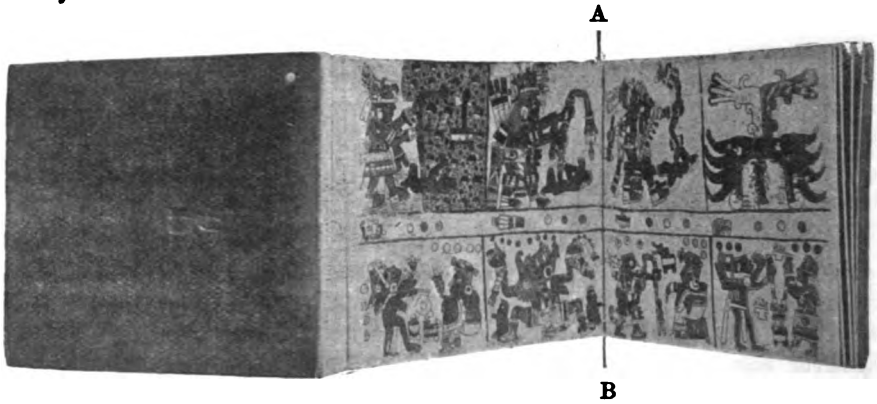
Reproductions of Nahua Manuscripts. By Francisco del Paso y Troncoso.

The attention of all Anthropologists interested in the ancient civilisations of America should be drawn to the magnificent series of reproductions of Mexican manuscripts now being issued by Señor del Paso y Troncoso and Professor Hamy, under the auspices of M. le Duc de Loubat. The codices already issued are five in number, namely the Vatican MS., 3773, known as the Codex Fabrégas; the Borgian MS. in the Museum of the Propaganda; the Codex Cospianus in the Library of the University of Bologna; the Codex Tellerio-Remensis in the Bibliothèque Nationale, Paris; and the Vatican MS., 3738, known as the Codex Rios, the two last being posterior to the Conquest, and provided with a commentary in Spanish. This series of facsimiles is of quite remarkable excellence, the most minute peculiarities of material and colour being reproduced with surprising fidelity.

The advance made since Lord Kingsborough's time is enormous, and students can now consult facsimiles on the accuracy of which they can confidently rely.

Digitized by Google

Through the munificence of M. le Duc de Loubat, who has in this matter proved a veritable Maecenas, the principal libraries of the world have been provided with each number of the series as it appears. From many points of view the MS. first mentioned is the most interesting, for it is still contained in its original wooden covers, formerly set with turquoises, of which only one now remains. The reproduction in this case gives us therefore an exact idea of the books from which the Nahua priests derived their ritual and astronomical lore, before Cortes overthrew the Empire of Montezuma. It may be added that M. le Duc de Loubat has himself rediscovered and published the "Clave General de Zeroglíficos Americanos" of Don Ignacio Borunda, lost to sight in the archives of Notre Dame de Guadaloupe for a hundred years.



The accompanying illustration will give some idea of the appearance of the smallest MS.—the Vatican Codex, 3773. It is on skin, painted on both sides, and opening like a folding screen. It is inclosed between two wooden covers, of which that which is shown in the photograph is the front. In the right-hand top corner of this cover can be seen inlaid a small stone resembling turquoise, while in the left-hand bottom corner is the cavity left by a similar stone; the marks seen in the middle of the cover are in all probability also those of other stones now lost. The other cover is left unornamented, from which it may be gathered that the end of the MS. is at this side a matter of some importance, for without some such clue it is difficult to say where some of these MSS. begin. The length of the covers is six inches. The line A B marks a fold in the manuscript. O. M. D.

DECADES AMERICANÆ, MÉMOIRES D'ARCHÉOLOGIE ET D'ETHNOGRAPHIE AMÉRICAINES. Par le Dr. E. T. Hamy, 3e and 4e Décades. Paris, 1898. 4 Plates. 23 illustrations. 211 pp. (Presented by the Author.)

The above work is the second instalment of a series of papers on American Archæology and Ethnography, arranged as the name implies in groups of ten. The greater number have already appeared in various publications, chiefly in the *Revue d'Anthropologie* and in the *Journal de la Société des Américanistes de Paris*. Dr. Hamy has conferred a distinct service on students of American ethnology by bringing together in one volume these useful essays. The subjects treated are very various and deal with almost all parts of the Continent. We have the history of explorations, ethnographical papers on Alaska, on the Jivaro Indians, on ancient Mexico, on Huron Wampum, etc., and on a memoir on the prominent part played by France in investigating the ancient civilisations of Mexico and Central America. The volume is provided with an index and table of contents. O. M. D.

Digitized by Google

TANGWEERA: Life and Adventures among gentle Savages. By C. Napier Bell, M.Inst.C.E. London: Arnold, 1899. 8vo. (Presented by the Author.)

The author of this book, now employed as a Civil Engineer in New Zealand, has given us a very interesting and graphic account of his adventures as a youth among the Mosquito Indians. He tells us that he was in the habit of writing all that he saw or heard, and these notes he has now arranged in his old age. It is certainly remarkable that a mere boy should have so patiently recorded his varied experiences, and to an ordinary reader some suspicion must inevitably arise, which the form of the narrative does not completely dispel. There is a remarkable absence of dates, and we have no map defining the routes of the author's wanderings. It might, as the author admits, have taken the shape of a boy's book, and obviously the form in which it has now been compiled robs it of some of the authority which it would have otherwise secured for scientific readers. With these reservations it is certainly a most interesting account of a people of whom we have little trustworthy information.

The Mosquito Indians are a maritime race, a colony sprung from the Caribs of the West Indies. Their country extends "from the Black River, 100 miles west of Gracias à Dios, to the river San Juan del Norte, which flows into the Caribbean Sea at the port of Greytown, where the Nicaragua Canal is to commence." They call themselves Tangweeras ("straight-hair") to distinguish them from the half-breed Sambos who speak the same language. Like all savage races confronted with the higher culture, they show a decided tendency to decrease in numbers, a process facilitated by the abandonment of British control over them in 1856, since when they have come under the dominion of the republics of Nicaragua and Honduras.

We have no detailed account of their religion and customs. They display the usual animistic beliefs characteristic of savage life, the only conception of a god being Alwaney, the great spirit of thunder, at whose bidding alligators, iguanas, tortoises, and sea-turtle, all hasten out of the egg.

I can barely refer to some of the anthropological facts which the author incidentally mentions. Like many savages they salute their relations on their return after protracted absence, with a dirge-like song; but it is thought improper for women to display any emotion on the arrival of their husbands. The dead are buried in a canoe, which is cut in half to form the top and bottom of the coffin. Food, weapons, etc., are laid with the dead, and periodical offerings are made at the grave. They have a well-organised feast of the dead. "Very frequently, when a man dies, they cut down his fruit-trees, burn his house and clothes, split up his canoe, and sell his wife; that is to say, if another man takes her, he must pay the relatives of the late husband for the expense and labour he has devoted to her. Thus, the children inherit nothing but the debts, which are not forgotten to the second or third generation. In addition to this, the bereaved relatives are urged to give feasts of the dead, and an entire plantation of cassava may be consumed in a single night's debauch" (p. 95).

The dress is gaudy. "The bracelet round the leg below the knee is sacred to love, and it is bad manners to allude to a young man's knee-clasp or to question him about it. Yet, when young men meet, those who know of this custom can always see them glance at each other's knees; and often a girl is seen hurriedly to conceal a piece of bead-work she is engaged in plaiting" (p. 128).

Morality is of the easy-going type, and both prenuptial incontinence and intertribal immorality seems to be lightly regarded.

Many are adepts in charming the wind and controlling storms. Killing the Coongcoong monkey is sure to bring rain. "That monkey belongs to the water

Digitized by Google

spirit and it will be very angry if the beast is slain" (p. 183). The forest owl has demoniacal characters, and its claws are hung round the necks of children as a charm. The red-hump blackbird is the guardian of love, and whoever molests them will never be fancied by any girl. The forest birds are the poultry of the spirits and if molested something awful will happen. The rock-snake cannot abide an *enceinte* woman, but attacks her at once. Spirits have a like repugnance, "so that a Sookia, or medicine-man, while communicating with spirits or preparing incantations, must on no account see a woman in such a condition, the inference being that this snake is connected with spirits" (p. 225 *seq.*).

Rheumatism is caused by thorns which evil spirits have stuck in the flesh and these are pulled out by the sorcerer (p. 240). W. Crooke.

The Natural History of the Musical Bow. A Chapter in the Developmental History of Stringed Instruments of Music. By Henry Balfour, M.A. Curator of the Pitt-Rivers Museum, University of Oxford. Oxford Clarendon Press, 1899. Price, 4*s.* 6*d.* 8vo. 87 pp. 61 illustrations.

This is the first part of a monograph, and is concerned with the primitive types; the second part, which is not yet published, will deal with more highly developed instruments. The writer shows how the first stringed instrument was the bow with its twanging string, and how gradually additions and improvements were made, by means of which the original weapon was transformed into an instrument with no other function than to make sweet music. The numerous cuts which illustrate the text, make the nature of the transformation abundantly clear, and the localities in which the musical bow is actually in use, or in which it is recorded as a legendary prototype, are carefully noted with numerous references to the literature of the subject. A coloured map at the end exhibits at a glance the distribution of these interesting objects, showing their occurrence in Africa, India, the Asiatic Islands, Melanesia and Polynesia, and Central and South America. It is unnecessary to point out the importance of studies of this kind which retrace the phylogenetic development of instruments of art or industry, and enforce the lesson that almost everything we use in daily life is the product of an infinitely slow growth. The Pitt-Rivers Museum is a school which exists for this purpose; and its accomplished curator, by publishing in an attractive literary form any of the admirable series under his control, is fulfilling in the best possible manner the desires of the founder and of all students of ethnographical science. O. M. D.

Memories of the Picts. By D. MacRitchie. Reprinted from the *Scottish Antiquary*, January, 1900. (Presented by the Author.)

The writer insists on what may be termed the fairy aspect of the Pechts, especially their living underground in rooms so small that the occupants must have been men of very small stature. So he argues partly on the ground of the ascertained dimensions of some of those rooms and partly also on the statements of Thomas Tulloch, who appears to have been governor of Orkney in 1422–48, under the Scandinavian monarch Eric VII. of Denmark. He cites other authorities also, and we feel far from certain that the Pictish underground dwellings did not have something to do with Gildas' picture when he wrote "..... *emergunt certatim de curicis, quibus sunt trans Cichicam vallem vecti, quasi in alto Titane incalescenteque caumate de arctissimis foraminum cavernulis fusci vermiculorum cunei, tetri Scotorum Pictorumque greges*," etc.

Digitized by Google

This is not the first time that Mr. MacRitchie has touched on the Pechts; but we note with satisfaction that he has now dropped certain arguments which seemed to us, so far from helping him, to have been prejudicial to his position. J. R.

THE ETHNOGRAPHY OF THE NORTH-WESTERN SOLOMON ISLANDS. By R. Parkinson.

Herr R. Parkinson has an unique knowledge of several districts of Melanesia, and he has recently contributed a very valuable paper on the Ethnography of the North-Western Solomon Islands to the *Abhandl. u. Berichte d. K. Zool. u. Anthrop. Mus. zu. Dresden*, Bd. VII, 1899. In Buka there are two clans which take the name of their totems. These are the Fowl and the Frigate-bird; one clan must marry into the other. In North Bougainville the same obtains, but in South Bougainville and in the neighbouring islands there are a number of bird clans; here a member of a clan may marry a member of any other clan except that to which he or she belongs. In all cases the children belong to their mother's clan.

Interesting information is given about ceremonies in which masks are employed. The important *Rukruk* custom (sometimes also called *burri*) is described; it takes place in a tabued clearing in the bush, where there is a sacred hut; here the bull-roarer is whirled, and the women believe that the initiates (*matasesen*) have converse with the male and the female spirit (*ruk*).

The long hair of the initiates is cut off, but as a rule a long lock is left on the nape, the end of which is decorated with beads or a shell. After the ceremony the *matasesen* may choose a wife. Parkinson compares the Solomon Island *rukruk* with the *dukduk* of the Gazelle Peninsula of New Britain, where, however, the bull-roarer is unknown. Cannibalism is not so universally spread as is believed. Scarification occurs all over the district; it enhances personal attraction in both sexes. As Parkinson deals with music, houses, clothing, ornaments, money, utensils, weapons, canoes, fishing, etc., it will be apparent that this memoir is of considerable importance, especially when one remembers that the author has peculiar facilities for gaining trustworthy information. A. C. H.

BEITRAGE ZUR ANTHROPOLOGIE ELSASS-LOTHRINGENS. Herausgegeben von Dr. G. Schwalk, Professor der Anatomie an der Universität Strassburg. ERSTES HEFT. *Die Schadelformen der Elsässichen Bevolkerung in Alter und Neuer Zeit.* Von Dr. Edmund Blind. ZWEITES HEFT. *Die Körpergrösse der Wehrpflichtigen des Reichslandes Elsass-Lothringen.* Von Dr. S. Brandt.

This work, of which the first two instalments are now available, will comprise a complete inquiry into the physical characteristics of the inhabitants of the German frontier provinces. Such a work comparable to that done by Ammon and Ecker in the Rhine Provinces, by Ranke in Bavaria, and by Topinard, Collignon, and many others in France, is of the utmost value to the anthropologist. Elsass-Lothringen having been from time immemorial one of the great battle grounds of Europe, it is surprising that the anthropological landmarks should remain as distinct as they do.

In the first part Dr. Blind gives a detailed account of some 700 skulls, mostly dating from the 14th–16th centuries, obtained from various ossuaries in Elsass. He concludes that in the main they indicate that at this period a brachycephalic, leptorrhine, and megaseme population was spread out over the Vosges, mixed here and there with long-skulled elements coming from across the Rhine valley. The skulls of this people closely resemble, if indeed they are not identical with, those of Celts from Auvergne described by Broca, and those of the broad band of brachycephalous

Digitized by Google

individuals which stretches across the Alps from the lake of Geneva to the borders of inner Austria.

In the hills a nearly pure black-haired, dark-eyed, small-built people, with a peculiar patois can still be distinguished, though in the plains and towns the populace is very mixed. His paper is illustrated by tables, reproductions of skulls, and a useful sketch map.

In the second part Dr. Brandt has worked out a lengthy series of investigations into the height of the population, canton by canton, comprising altogether observations on 105,561 individuals.

In his summary he shows that the highest average height is met with to the East in the Rhine Valley and to the south, while in the centre, near the summits of the Vosges, the average cantonal height falls considerably. A sudden rise in average height in the cantons of Münster and Wruzenheim he explains by the comparatively recent immigration of Swiss dairy farmers into the fertile pasturage of the valley of the Fecht.

The author concludes that in the northern part of this district one meets traces of Franks, in the Rhine Valley of Alemanni, and to the south of Burgundians, who have forced their smaller and weaker predecessors to take refuge in the inhospitable depths of the forests clothing the slopes of the Vosges mountains.

Dr. Brandt traces the history of Elsass-Lothringen from the stone age to the present time, and has profusely illustrated his monograph by maps and tables.

F. C. Shrubsall.

Public Museum of Wanganui, New Zealand. Fourth Annual Report of the Hon. Curator. 8vo, pp. 32, photographic illustrations. Wanganui, N.Z., 1899. (Presented by the Curator.)

The Trustees of this Institution are to be congratulated on the rapid progress made during the last twelve months. In this period the size of the Museum has been doubled, and much valuable material added by presentations. The Curator, however, complains that want of funds prevents him from adding to the already valuable Maori collections by purchase, but at the same time, where possible, he is anxious to make exchanges with other museums.

The Report contains illustrations of the new buildings and of some of the Maori exhibits, together with a full list of donors, numbering 140, from 1st July, 1898, to 30th June, 1899.

J. E. P.

International Congress of Prehistoric Anthropology and Archæology.

The twelfth International Congress of Prehistoric Anthropology and Archæology will be held in Paris at the Collège de France between August 20th and 25th, and the opening session, in the Palais des Congrès of the Paris Exhibition.

The President of the Congress is M. Alexandre Bertrand, member of the Institute, and Keeper of the Museum of National Antiquities at St. Germain-en-Laye; the General Secretary, Dr. R. Verneau, of the National Museum of Natural History, (Rue Broca 148); and the Treasurer, M. Henri Hubert, to whom application for membership, and payments of subscriptions should be addressed.

It is hoped that the Anthropological Institute may be fully represented in the proceedings of the Congress, and in the numerous excursions which are contemplated to French sites in Brittany, and Central and Southern France.

The following provisional programme of discussion has been issued by the Organising Committee:—

Digitized by Google

I. *Applications de l'Anatomie comparée et de la Paléontologie à la question de l'origine de l'homme.* Malgré la valeur des travaux déjà publiés sur la question, les documents ne sont pas assez nombreux pour permettre d'établir ou même d'esquisser la phylogénie de l'espèce humaine. Aussi convient-il de signaler toute découverte nouvelle de Lémurien ou de Singe fossile et tous les faits anatomiques de nature à établir des relations entre le Lémuriens, les Singes et l'Homme.

II. *L'aurore du paléolithique.* Dans ces dernières années, des publications ont été consacrées à des silex taillés provenant du Pliocène de l'Inde, du *Forest-bed* de Cromer, de dépôts donnés comme *préglaciaires* de l'Angleterre, des alluvions inférieures de Mesvin ou de la vallée de la Somme, etc. Il serait important d'examiner si ces découvertes ou d'autres analogues, qui pourraient être communiquées, remontent à une époque antérieure à celle des espèces dites *chaudes* (Hippopotame, Éléphant antique, Rhinocéros de Merck, etc.).

III. *Comparaison des objets d'industrie humaine trouvés dans les alluvions quaternaires de l'ouest de l'Europe avec les objets analogues recueillis dans les autres pays du monde.* La découverte en Égypte et dans d'autres contrées de l'ancien et du nouveau monde d'instruments en pierre reproduisant tout à fait les formes des silex taillés recueillis dans les alluvions quaternaires de l'Europe occidentale, soulève une question des plus intéressants: on doit se demander si tous ces objets sont synchroniques. Pour résoudre cette question, il est nécessaire, non seulement de comparer morphologiquement les objets dont il s'agit, mais surtout d'établir l'âge exact des gisements nouvellement découverts.

IV. *Passage du paléolithique au néolithique.* Les recherches faites au Mas-d'Azil, à Campigny, dans l'Yonne, en Écosse, etc. ont convaincu beaucoup d'archéologues que le passage du paléolithique au néolithique s'est fait d'une façon insensible. Les harpons cylindriques en bois de renne ont été remplacés par des harpons plats en bois de cerf; des galets en partie usés ont fait leur apparition, de même que le pic et le tranchet; la poterie se montrerait avant la hache polie. Ces faits ont besoin d'être confirmés par de nouvelles observations; la stratigraphie et la paléontologie doivent venir au secours de l'archéologie. Enfin, le passage a dû se faire de différentes façons et à des époques diverses suivant les lieux. Il est donc nécessaire de mettre en œuvre toutes les méthodes de recherches, toutes les trouvailles nouvelles pour résoudre cette importante question.

V. *Description des édifices sur pilotis comparables aux habitations lacustres ou palafittes des Alpes, découverts dans les diverses régions de l'Europe.* En dehors de l'étude de ces édifices et des objets qui y ont été recueillis, il serait intéressant de déterminer quelles sont les sépultures contemporaines des habitations sur pilotis. Pour la Suisse, en particulier, est-il possible d'établir un parallélisme exact entre les trouvailles faites dans les lacs et sur leurs rives?

VI. *Passage du néolithique aux métaux.* Les objets en cuivre pur sont-ils assez nombreux et présentent-ils des formes assez spéciales pour faire admettre l'existence d'un véritable âge du cuivre ayant précédé l'âge du bronze? Il est à désirer que de nouvelles observations, accompagnées d'analyses chimiques, soient apportées au Congrés.

VII. *Rapports de la civilisation dite* méditerranéenne: 1° *avec les civilisations égéenne et mycénienne*; 2° *avec les civilisations analogues de l'Europe centrale.* Il n'existe pas encore de travail d'ensemble tenant compte, par exemple, des résultats découlant des recherches faites récemment en Égypte. Le point essentiel serait de pouvoir déterminer le centre de diffusion (européen ou asiatique) des formes industrielles et artistiques dont on constate l'apparition vers la fin de l'époque néolithique.

VIII. *Aire géographique, divisions et chronologie du deuxième âge fer du.*—

Digitized by Google

L'aire géographique de la civilisation du deuxième âge du fer est encore mal délimitée, en particulier vers le Sud-Ouest et le Nord-Est. Il serait très utile d'indiquer sur une carte les stations de cette époque. Il serait non moins utile d'apporter des observations nouvelles susceptibles de confirmer ou de modifier la classification de Tischler. Enfin, la chronologie du deuxième âge du fer a besoin d'être précisée pour chaque région. Ne pourrait-on pas, dans ce but, tirer parti des trouvailles de vases grecs à figures rouges et de monnaies gauloises?

IX. *Caractères anatomiques de l'homme primitif et des races humaines préhistoriques.*—Il convient non seulement de décrire les caractères des races préhistoriques, mais encore de les interpréter. Tous les faits nouveaux relatifs au Pithecanthropus, en particulier, présenteraient un intérêt considérable.

X. *Survivances ethnographiques pouvant jeter quelque lumière sur les mœurs et l'état social des populations préhistoriques.*—La Mélanésie en général, l'Australie en particulier, l'Amérique du Sud, les Pays Barbaresques, etc., ont fourni, dans ces derniers temps, la matière d'observations très intéressantes dans cet ordre d'idées. Ce serait faire œuvre fort utile que de classer et de comparer les données nouvelles ainsi recueillies.

XI. *Jusqu'à quel point les analogies d'ordre archéologique ou ethnographique peuvent-elles autoriser l'hypothèse de relations ou de migrations préhistoriques?*—Il est indispensable de distinguer les faits qui s'expliquent par les mêmes états sociaux ou les mêmes milieux de ceux qui sont de nature à autoriser l'hypothèse d'une identité de race.

INTERNATIONAL CONGRESS ON THE HISTORY OF RELIGION.

On the initiative of the Professors of the Section of the Science of Religion at the École des Hautes Études, an International Congress on the History of Religion will be held at the Sorbonne in connection with the Paris Exhibition from September 3rd to 9th inclusive.

The President is M. Albert Réville, Professor in the Collège de France; the Secretaries are M. Léon Marillier and M. Jean Reville, the editors of the *Revue de l'Histoire des Religions*, and the Treasurer, to whom subscriptions should be addressed, is M. Philippe Berger, Member of the Institute, and Professor in the Collège de France, Quai Voltaire 3.

The work of the Congress will be divided into eight sections as follows:—

I. The religions of uncivilised peoples; and of the pre-Columbian civilizations of America.
II. The history of the religions of the Far East: China, Japan, Indo-China, the Mongols, and the Finns.
III. The history of the religion of Egypt.
IV. The history of the so-called Semitic Religions, (*a*) in Chaldæa, Assyria, and Asia Minor; (*b*) Judaism and Islam.
V. The history of the religions of India and Siam.
VI. The history of the religions of Greece and Rome.
VII. The religions of the Germans, Celts, and Slavs: and the data of prehistoric archæology in Europe.
VIII. The history of Christianity (*a*) in the first centuries A.D.; (*b*) in the middle ages; (*c*) in the modern world.

The discussions contemplated by the Congress are of an exclusively historical kind, and questions of dogma or sectarian belief are entirely prohibited. Communications are admitted in English, French, German, Italian, and Latin.

Digitized by Google

INDEX.

A.

Abaw-Efik, High Priest of Egbo Society, 21.
Accad, significance of the name, 13.
" Across the Border," written by Oliver (*rev.*), 17.
Afá Society in Little Popo, Togoland, 24.
Afridis (Pathán Tribe), Col. Sir T. H. Holdich on, 2.
Aggry Beads, Levins' Collection of, 119.
Ahmad Shah, Founder of Durani Empire, 3.
Aikon, Religious Play in West Africa, 24.
Al Mahfuza, Syrian Settlement in Sindh, 19.
Alldridge (J. T.), on Mr. F. Marriott's paper, 26; on Sierra Leone and the Protectorate, 50, 64.
Alligator Society, see Secret Societies of W. Africa, 21.
Auriferous Gravel Man in California, by W. H. Holmes (*rev.*), 334.
Ambela, 4.
Amphidromy, by A. C. Haddon, 315.
Andaman and Nicobar Islands, Customs similar to those of the Niger, 63.
Andaman (South) Languages, by M. V. Portman (*rev.*), 181.
Anthropometria, by Rudolfo Livi (*rev.*), 324.
Arab Tribes of our Indian Frontier, by Col. Sir T. H. Holdich, 10.
Arabic, our Naval Terms Derived from, 14.
Arabs Inhabiting Makrán, 11.
Arch, Entirely Unknown in Mexico, 40.
Astrology and the Divining Rod, by T. V. Holmes, 313.
Aurungzebe, 4.
Australian Tree Carvings, by Herbert Perkins, 152.
Authority and Archæology, edited by D. G. Hogarth (*rev.*), 187.
Axe Currency in Dr. Sologuren's Collection, Oaxaca, 46.
Ayaka, a Society of the Ibibeo Tribe, 22.
Aztecs, see Corner (W.), " Mitla," 31.

B.

Babar, Founder Mogul Dynasty, 4.
Bágh, Centre of the Maidan Plain, 7.
Bajaor, Country North of the Khaibar, 3.
Balfour (H.), Natural History of the Musical Bow (*rev.*), 340.
Baluch Khan, a Notorious Freebooter in Makrán, 17.
Baluchi, of Arab Origin, 15.
Barakzai, Present Dynasty of Kabul, 3.
Bar Rohi, see Brahui, a Mountaineer, 13.
Barotsi (Kingdom of), by Alfred Bertrand (*rev.*), 188.
Bazid, Afghan Adventurer, 7.
Beddoe (J.), on Col. Holdich's paper, 18; on the Mediæval Population of Bristol, 142.
Beginnings of Currency, by Col. R. C. Temple, 99.
Bela, Mediæval Arab City in West India, 15.
Bell (C. Napier), Tangweera (*rev.*), 339.
Bendé, 30 miles from Long Ju Ju, 52.
Benedikt (Moriz), Kathetometry (*rev.*), 333.
Ben-i-Israel, Descendants of Babylon Captives, 2.

Digitized by Google

Bennett (A. L.), elected, 1; Ethnographical Notes on the Fang, 66.
Bennett (Mrs. G. Nevill), elected March, 1899, 28.
Benson (Miss M.), the Temple of Mut in Asher (*rev.*), 191.
Berry (R. A. J.), elected, 98.
Bertrand (Alfred), the Kingdom of the Barotsi (*rev.*), 188.
Bicycle and Crime, by T. V. Holmes, 313.
Bird Gods, by Charles de Kay (*rev.*), 186.
Blind (Edmund), Elsass-Lothringens, Anthropologie (*rev.*), 341.
Boas (Franz), the Cephalic Index (*rev.*), 332.
Bodio, the Fetish King, 62.
Boledi, W. Indian Tribe Spoken of by Ptolemy, 13.
Bora Rites, Initiation of Youths into Manhood, Australia, 153.
Borfima, a Fetich Medicine in Sherbro, 26.
Bozdars, an Arab Confederation, 15.
Brahui Tribe Inhabiting East and West of Kalat, 12.
Brandt (S.), Elsass-Lothringens, Anthropologie (*rev.*), 341.
Brinton (D. G.), on Toltecs and Maya Culture, 47, 48.
Bristol, Mediæval Population of, by J. Beddoe, 142.
British Association, Dover, 1899, Anthropology, 198.
Brown (J. Allen), on G. Clinch's paper, 139; Stone Implements, Pitcairn Island, 210.
Buddhism among Dilazaks, 4.
Bulu, a People in German West Africa, 67.
Bunds, Dams to form Water Reservoirs, 14.
Buner, Country North of the Khaibar, 3.
Burmah, Nats or Spirits of, by R. C. Temple, 217.
Buschan (G.), Centralblatt für Anthropologie (*rev.*), 196.
Bugti, a Frontier Arab Tribe, 18.
Bugtis, an Arab Confederation, 15.
Caldwell (Dr. Bishop of Tinnevelly), Sepulchral Urns, S. India, 290.
Cambridge Expedition, S. H. Ray on Linguistic Results of, 219; New Guinea and Torres Straits, 211.
Canada, British Association Committee on, 210.
Cappadoce, Mission en, by Ernest Chantre (*rev.*), 320.
Cardi, Comte de, on Fitzgerald Marriott's paper, 27; Juju Laws and Customs, 51.
Caruana (A. A.), Ancient Pagan Tombs, etc., of Malta (*rev.*), 329; Royal Public Library of Malta (*rev.*), 329.
Central African Vocabularies, see Juba Expedition, 244–9.
Centralblatt für Anthropologie (*rev.*), 196.
Cephalic Index, by Franz Boas (*rev.*), 332.
Chadwick (H. M.), the Cult of Othin (*rev.*), 189.
Chakdara, in the Swat district, 6.
Chaldeans inhabiting Makrán, 11.
Chamkanni, a Tribe on Borders of Tirah, 7.
Chandrabans, the Lunar Race of Rajputs, 3.
Chantre (Ernest), Mission en Cappadoce 1893–94 (*rev.*), 320.
Chengis Khan, the Destroyer, 4.
Chichén Itzá, ruin in Yucatan, 47.
Christian (F. W.), elected November, 1899, 225.
Chronology, Prehistoric, by O. Montelius, 308.
Church (Col. George Earl), on Corner's paper on Mitla, 48.
Circumcision, a Sign of Freedom, 56.
Clark (A.), Judicial Oaths used on Gold Coast, 310.
Clemens (E.), Vocabulary of Galluma Tribe, 192.
Clinch (G.), Prehistoric Man in Kent and Surrey, 123; Correction of Error in last Journal, 315.
Clitoridectomy, used in Niger Delta, 59.

Digitized by Google

Codice Pictorico de los Antiguos Nauas, F. del Paso y Troncoso (*rev.*), 337.
Coffey (George), Copper Celts in Ireland, 206.
Cole (J. A. Abayomi), Writer on Poro, 21.
Copan, founded by Toltecs, 47.
Corner (Wm.), Mitla, 29.
Craft (Mabel C.), Hawaii Nei (*rev.*), 335.
Crooke (Wm.), on Col. Holdich's paper, 20; on Dr. A. L. Bennett's paper on the Fang, 97; on Col. Macdonald's Juba Expedition, 243; on Dr. Westermarck's Arab Ginn, 268; Primitive Rites of Disposal of the Dead, India, 271.
Cult of Othin, by H. M. Chadwick (*rev.*), 189.
Cursing-stick, used in Niger Delta, 58, 60.

D.

Damba Koh, Hills on which Dambs are built, 12.
Damb, Stone Huts on hill sides at Makrán, 12.
Davenport (C. B.), Statistical Methods (*rev.*), 326.
Deane (Major), 64.
Decades Americanæ, by Dr. E. T. Hamy (*rev.*), 338.
Defiled by touching a corpse—by earth from a grave—by Long Ju-Ju men, 53.
Dialect Changes in Polynesian Languages, by Rev. S. Ella, 154.
Dilazaks, Extinct Tribe of Western India, 4.
Disregard for Death in Niger Delta, 55.
Dolmens and Burial Mounds in Japan, by W. Gowland (*rev.*), 183; of Japan and their Builders, by W. Gowland (*rev.*), 183.
Duckworth (W. L. H.), elected, 1; on a Skull from Syria, 145; Anthropometrical Instruments, 270, 313; German Congress at Lindau, September, 1899, 314.
Duranis, modern name of Afghans, 2.

E.

Eaglehawk and Crow, by John Mathew (*rev.*), 197.
Eddowes (Alfred), on Stonehenge, 209.
Egbo, Tiger or Leopard, Society on Niger, 21.
Elliot (Sir H.), 15.
Elmslie (W. A.), Among the Wild Ngoni (*rev.*), 191.
Elsass-Lothringens, Anthropologie, ed. by Dr. G. Schwalk (*rev.*), 341.
Estlake (Allan), the Oneida Community (*rev.*), 327.
Ethiopians, inhabiting Makrán, 11.
Ethnology, by A. H. Keane (*rev.*), 184.
Evans (A. J.), Fibulæ from North Africa, 207.

F.

Fang, Ethnographical Notes on the, by Dr. A. L. Bennett, 66; Degeneration of, from Syphilis, 70; most companionable People, 71; Dancing a Favourite Amusement, 72; Painting, Tattooing, Cicatrization, 73; Working of Iron, Fire, Machinery, 76; Food, Cooking, 81; Religion, Fetish or Biang (medicine), 85; are Cannibals, 68, 83.
Father-making, Worship of Ancestors, 54.
Ferishta, 15.
Fillmore (J. C.), Harmonic Structure of Indian Music (*rev.*), 330.
Fitzgerald Marriott (H. P.), Secret Societies of West Africa, 21.
Flint Implements in Glacial Deposits, Cheshire, by J. Lomas (*rev.*), 333.
Foreman (John, F.R.G.S.), the Philippine Islands (*rev.*), 191.
Frazer (J. G.), Golden Bough, 63.
Funeral Customs of the Niger Delta, 53.

G.

Galton (Francis), Finger Prints, 199.
Gardner (Ernest), on Montelius' Prehistoric Chronology, 308.

Digitized by Google

Garson (J. G.), edited 3rd Edition "Anthrop. Notes and Queries," 197.
Gesture-curses, in the Niger Delta, 57.
Ghilzais, 3.
Gichki, a Sikh tribe who succeeded the Boledi, 13.
Ǧinn (Arab), Nature of, in Morocco, 252.
Gourlay (Miss J.), the Temple of Mut in Asher (*rev.*), 191.
Gowland (Wm.), 50, 140; on Wm. Crooke's Primitive Rites, Disposal of Dead, India, 292; Dolmens of Japan (*rev.*), 183.
Græco-Bactrian Coins Rare in Makrán, 19.
Gray (John), Ethnographical Work in Scotland, 213.
Greg (T. T.), elected, 1.
Greenstone Hammer, Chisel, and Axe, from Mitla, 46.
Griffith (F. L.), elected March, 1899, 20.
Gualluma Vocabulary, by E. Clement, 192.

H.

Haddon (A C.), Amphidromy, 315.
Hajjaj despatched 6,000 Syrians to Sindh from Aleppo, 19.
Hamy (E. T.), Reproductions of Nahua Manuscripts (*rev.*), 337; Decades Americanæ (*rev.*), 338.
Harmonic Structure of Indian Music, by J. C. Fillmore (*rev.*), 330.
Haverfield (F.), Roman origin of Mediæval Charm, 306.
Hawaiian Language, see Rev. S. Ella's Paper, 157.
Hawaii Nei, Mabel C. Craft (*rev.*), 335.
Head-dress, Survival of Ancient Type, in Mexico, 38.
Heckethorn (C. W.), writer on Poro Societies, 21.
Henry (E. R.), Finger Prints, 198.
Hingol River Delta, Site of Tomeros, 11.
Hobson (Mrs. M. A.), elected March, 1899, 20.
Hogarth (D. G.), editor of Authority and Archæology (*rev.*), 187.
Holdich (T. H.), on Swatis and Afridis, 2, 10.
Holmes (W. H.), of Field Columbian Museum, 36; Auriferous Gravel Man in California (*rev.*), 334.
Holmes (T. V.), Astrology and the Divining Rod, 312; the Bicycle and Crime, 313.
Honolulu, Bishop, Museum Ethnology, No. 1 (*rev.*), 326.
Horsford (Cornelia), Vinland and its Ruins (*rev.*), 334.
Hrdlička (Ales), Study of the Normal Tibia (*rev.*), 332; Ancient Mexican Skeleton (*rev.*), 333.
Huastecas, a Maya People of Rio Panuco, 47.
Human Sacrifices in West Africa, 24; not usual in Ju-Ju Society, 52.
Huxley Memorial Statue, Report of Unveiling of, 316.

I.

Ibibeo, a West African Society, 22.
Ibo or Eboe Tribe, in Hinterland of Niger Delta, 52.
Ibu Haukal, writer on Arabic, and Sindhian, 19.
Ichthyophagi, a Race Discovered by Nearchus, 19.
Idiong or Idion Society, Higher Branch of Egbo, 23.
Ifé or Illé Ifé, Sacred Place in Yoruba, 25.
Igbo (see Egbo), 21.
Ilaxcaltecs assisted Cortez against Mexico, 49.
Illing (K. E.), Der Periplus des Hanno (*rev.*), 185.
Imperri, District of West Africa, 26.
India, Primitive Rites of Disposal of the Dead (Wm. Crooke), 271.
Indo-Scythians, known as Sakas, 19.
International Congress (12th) of Prehistoric Anthropology and Archæology (Paris, 1900), 342; of History of Religion, 342.

Digitized by Google

J.

Jadite found in Mexico, 38.
Jalawán, West Islands of Kalat, 12.
Jolly-boat, from Arabic "Jalaba," 14.
Jones (T. Rupert), on Mr. Swynnerton's paper, 123.
Juba Expedition, by Lieut.-Col. J. R. L. Macdonald, 226.
Judicial Oaths used on Gold Coast, by A. Clark, 310.
Ju-Ju Laws and Customs, by M. Le Comte de Cardi, 51.

K.

Kaliph Yejid persecuted Syria, end of seventh century, 15.
Karamojo (see Juba Expedition), 234.
Katahwiri Society for Men, on Gold Coast, 21.
Katahwiriba Society for Women, on Gold Coast, 21.
Kathetometry, by Prof. Dr. Moriz Benedikt (*rev.*), 333.
Kay (Charles de), "Bird Gods" (*rev.*), 186.
Keane (A. H.), "Ethnology," and "Man, Past, and Present" (*rev.*), 184.
Kej Valley, near Mand, in Makrán, 15.
Kennedy (Mr. J.), on Col. Holdich's paper, 18.
Kez Macoran, Saracenic in 1290, 15.
Khalmat, on the Makrán Coast, 15.
Khalmat chiefs of Makrán, 14.
Kingsley (Miss M. H.), on M. le Comte de Cardi's paper, 61.
Kish, ancestor of Afghans, 2.
Kivo Ibo River, in West Africa, 24.
Kru Coast, Social Classification on, 62.
Kusháns, part of the Confederacy of the Yue-chi, 19.

L.

Labia Pudendi artificially joined in Niger Delta, 60.
Laghmani, Afghan race of Laghman Valley, 4.
Lang (Andrew), elected, 1.
Lawrence (G. F.), elected November, 1899, 225.
Lee (Mrs. Kate), elected November, 1899, 225.
Leonard (A. C.), of Niger Coast Protectorate, 52.
Leopard Society, see Secret Societies of W. Africa, 21.
Levin (M. L.), Aggry Beads, see Col. Temple's paper, 119.
Lewis (A. L.), on G. Clinch's Prehistoric Man, 139.
Livi (Rudolfo), Antropometria (*rev.*), 324.
Lomas (Joseph), Flint Implements, Glacial Deposits, Cheshire (*rev.*), 333.
Long Ju-Ju Men on the Kivo Ibo River, W. Africa, 24; in the Ibo Country, 52.

M.

Macdonald (J. R. L.), Notes on the Ethnology of Tribes met with in Juba Expedition, 1897–99, 226.
Macalister (A.), Anthropometry, 203.
MacIver (David), elected, 251; Anthropometry in Egypt, 202.
Maclagan (R. C.), elected November, 1899, 225.
MacRitchie (D.), Memories of the Picts (*rev.*), 340.
Mahmandsai, see Mohmands, 5.
Mahmud of Ghazni, Apostle of Islam, 4.
Mahomed Kassim invaded India, 705 A.D., 14.
Maidan, Headquarters of the Afridis, 6.
Makrán, Province of Beluchistan, 10.
Malta, Royal Public Library, by Dr. A. A. Caruana (*rev.*), 329; Ancient Pagan Tombs, etc., by Dr. A. A. Caruana (*rev.*), 329.
Mand, a District in Makrán, 15.
Man, Past and Present, by A. H. Keane (*rev.*), 184.
Manillas, Iron Circlets worth 1*d.*, 23.
Mansura, Arab Settlement in Sindh, 19.

Digitized by Google

Marett (R. R.), Pre-animistic Religion, 217.
Marco Polo in India in 1290, 15.
Mari, a Frontier Arab Tribe, 18.
Marriott (F.), on Bennett's paper on Fang, 97.
Marris, an Arab Confederation, 15.
Masai, see Juba Expedition, 232.
Masks, West African, see Mr. H. P. Fitzgerald Marriott's paper, 25.
Mathew (John), Eaglehawk and Crow (*rev.*), 197.
Maudslay (A. P.), Biologia Centrali-Americana, 36; on Wm. Corner's paper, 46.
Maya Quiché Towns, Utatlan, Iximche, Chacujal, 47.
Mayne (Col.), Conductor of Campaign in Makrán, 17.
'Mbuike Society in the Ibibeo Tribe, 22.
McDougall (W.), Sense of Touch and Pain, Cambridge Expedition, 222.
Medes, inhabiting Makrán, 10.
Mediæval Charm, Roman origin of, by F. Haverfield, 306.
Meiklejohn (General), 6.
Memories of the Picts, by D. MacRitchie (*rev.*), 340.
Mendi Country on West Coast Africa, 65.
Mexican Architecture and Ornament, 33.
Mexican Fortification, 45.
Mexico, Prof. F. Starr's Address on, 141.
Meyer (A. B.), the Negritos (*rev.*), 191.
Mingal, see Mongul, 12.
Mitla, paper by W. Corner on, 29.
Mockler (Col.), Political Agent at Makrán, 12.
Mohmand country North of the Khaibar, 3.
Mongols inhabiting Makrán, 11.
Montelius (Oscar), Prehistoric Chronology, 308.
Moreno (F. P.), Explorations in Patagonia (*rev.*), 334.
Morocco, Nature of the Arab Ǧinn in, 252.
Mosaic Ornament at Mitla, 36, 46.
Musical Bow, Natural History of, by Henry Balfour (*rev.*), 340.
Musical Instrument at Fetish Ceremonies, Plate VIII, 61.
Mut (Temple of, in Asher), by Miss M. Benson and Miss J. Gourlay (*rev.*), 191.
Muzaffarnagar District in North West Provinces, 20.
Myers (C. S.), Hearing, Smell, Taste, etc., Cambridge Expedition to Torres Straits, 222; Music in Torres Straits, 223.

N.

Nadir Shah, 4.
Nahua Manuscripts, reproductions of, by Dr. E. T. Hamy (*rev.*), 337.
Nalma Races on Pacific side of Mexico, 47.
Nanám Society for Men, on Gold Coast, 21.
Naoshera, 4.
Naoshirwani, a Persian Tribe of Kharan, 13.
Naval Terms, derived from Arabic, 14.
'Ndém Efik the Great (I)dém of Kalabar, 21.
Nearchus discovered the Ichthyophagi, 19.
Negritos, by A. B. Meyer, M.D. (*rev.*), 191.
Neolithic Age, see G. Clinch's Stone Implements, 124.
Neritina Fluviatilis, Discovery of, in Thames, by H. Stopes, 302.
New Guinea and Torres Straits, Cambridge Expedition, 211.
New Zealand, Kotahas or whip-slings, in British Museum, 304; carved canoe-head from, 305.
Ngoni, Among the Wild, by Dr. W. A. Elmslie (*rev.*), 191.
Nicobar, see Col. Temple's Beginnings of Currency, 99.
Normal Tibia, by Ales Hrdlička (*rev.*), 332.
Notes and Queries, edited by Dr. Garson and C. H. Read (*rev.*), 197.

Digitized by Google

O.

Odudua, the Mother of the Gods, Yoruba Goddess, 61.
Old Kalabar, home of chief Egbo Society, 21.
Oliver, author of "Across the Border," 17.
Olorum, Yoruba for supreme god, 25.
Oneida Community, by Allan Estlake (*rev.*), 327.
Onyckolum Society in the Ibibeo Tribe, 22.
Oracles, by Wise Woman in West Africa, 24.
Orakzais, Pathán Tribe of West India, 2.
Oricha, Yoruba word for Fetich, 25.
Orientation of Temples, by F. C. Penrose, F.R.S. (*rev.*), 336.
Oshogbo, Jebu name of a secret Society, Yoruba, 25.

P.

Pahtan, Syriac for Rudder, name of Kish, 2.
Paktun, see Pathán.
Paktun-wali, Pathán Code of Civil Observances, 2.
Palæontology, Text Book of, Vol. I, by K. A. Von Zittel (*rev.*), 331.
Palenque founded by Toltecs, 47.
Pandomanagai, Pygmies of India, 12.
Parikanoi, significance of the name, 13.
Parkinson (R.), Ethnography of Solomon Islands (*rev.*), 341.
Parsiwans, 3.
Partington (J. Edge), New Zealand Kotahas, 304; Note on Stone Battle-Axe, New Zealand, 305.
Parvez, the last of the Sagsanian Monarchs, 19.
Patagonia, Explorations in, Dr. F. P. Moreno (*rev.*), 334.
Pathán, Inhabitants of Western Borders of India, 2; Dictionary of, Calcutta, 1899 (*rev.*), 335.
Paul (J. D.), elected March, 1899, 20.
Pehlvi used for inscriptions on Sakas coins, 19.
Penrose (F. C., F.R.S.), Orientation of Temples (*rev.*), 336.
Periplus des Hanno, by Dr. K. E. Illing (*rev.*), 185.
Perkins (Herbert), Some Australian Tree Carvings, 152.
Persians Inhabiting Makrán, 11.
Petrie (W. M. Flinders), Sources of the Alphabet, 204; Sequences in Prehistoric Remains, 295; on Montelius' Prehistoric Chronology, 308.
Philippine Islands, by John Foreman (*rev.*), 191.
Photographs, British Association Committee to provide for the collection of, 201.
Physical Anthropology, Bibliography of, Prof. Dr. E. Schmidt (*rev.*), 333.
Pitcairn Island, Stone Implements of, by J. Allen Brown, 210.
Polynesian Museum, Ethnology, Honolulu, No. 1 (*rev.*), 326.
Poro Societies in Sierra Leone, 21.
Portman (M. V.), Languages of S. Andaman Group (*rev.*), 181.
Prehistoric Anthropology and Archæology, 12th International Congress (Paris, 1900), 342.
Prehistoric Man in Kent and Surrey, by G. Clinch, 123.
Prehistoric Remains, Sequences in, by Prof. W. M. Flinders Petrie, 295.
Psychology in Torres Straits, by Dr. W. H. R. Rivers, 219.
Pushtu, Language of Patháns, 2.

Q.

Quākery, Ju-Ju King of New Calaban, 51.
Quick (A. S.), elected November, 1899, 225.

R.

Races of Europe, by W. Z. Ripley (*rev.*), 188.
Rain-makers in West Africa, 23.
Rajputs inhabiting Makrán, 11.

Digitized by Google

Ray (Sidney H.), Linguistic results of Cambridge Expedition to Torres Straits, 219.
Read (C. H.), 1, 28, 65, 98, 123, 225, 270; edited 3rd edition "Anthropological Notes and Queries," 197; Note on Carved Canoe Head, New Zealand, 305.
Rekis, a Desert-Bred Tribe of West India, 15.
Religion, History of, International Congress on (1900) (*rev.*), 342.
Ridgeway (Prof.), on Col. Temple's paper, 121.
Rinds, Arab Confederations, 15.
Ripley (W. Z.), the Races of Europe (*rev.*), 188.
Rivers (W. R. H.), Genealogical Statistics, 200; on Skin Colour, 204; Psychology of Cambridge Expedition to Torres Straits, 219.
Roh country, inhabited by Rohillas, 2.
Rohillas, W. India, inhabitants of Roh, 2.
Rucker (Miss S. E.), elected November, 1899, 225.

S.

Sacrifice of Animals over dead Chieftains, 22.
Saiad Akbar the prophetic Mullah of Tirah, 7.
Sakas, Indo-Scythians in Makrán, 19.
Sakastene or Sejistān, named by Sakas, 19.
Samoan Alphabet, see Rev. S. Ella's paper, 155.
Sandeman (Sir Robert), 18.
Sarabur, a branch of the Afghan family, 3.
Sarawán, East Highlands of Kalat, 12.
Sartor Fakir, the bareheaded, 6.
Schmidt (E.), Bibliography of Physical Anthropology (*rev.*), 333.
School Children, Abnormal, British Association Committee on, 203.
Schwalk (G.), editor of Elsass-Lothringens, Anthropology (*rev.*), 341.
Science and Faith, by Dr. Paul Topinard (*rev.*), 317.
Secret Societies of West Africa, by H. P. Fitzgerald Marriott, 21.
Seligmann, Dr. C. G., on New Guinea, Torres Straits, and Queensland, 212.
Shah Zaman, son of Timur, 4.
Sherbro, West African Coast, home of Human Leopard Society, 26.
Sikhs inhabiting Makrán, 11.
Silchester, British Association Committee on, 209.
Sinjaranis of the Helmund, from Syria, 15.
Siri Society, secret society in Egypt, 24.
Sistan District of W. India, 13.
Skeleton, ancient Mexican, by Ales Hrdlička (*rev.*), 333.
Skull from Syria, by W. L. H. Duckworth, M.A., 145.
Skyths inhabiting Makrán, 11.
Smith (Eveleigh), on Mr. F. Marriott's paper, 23, 25.
Sologuren (Dr.), his collection, Oaxaca, 46.
Solomon Islands, Ethnography of, by R. Parkinson (*rev.*), 341.
Starr (Frederick), Address on objects from Mexico, 141.
Statistical Methods, by C. B. Davenport (*rev.*), 326.
Stone Implements from Gwalior, by F. Swynnerton, 141.
Stone lance-heads from Mitla and Oaxaca, 45.
Stopes (H.), on discovery of *Neritina Fluviatilis* in Thames, 302.
Swat, country north of the Khaibar, 3.
Swatis, Col. Sir T. H. Holdich on, 2.
Swynnerton (F.), elected, 98; Stone Implements from Gwalior, 141.
Symbols of Yoruba Secret Society, Plate VIII, 61.

T.

Tahitian Language, see Rev. S. Ella's paper, 156.
Tajaks, husbandmen of S. Baluchistan, 13.
Tangweera, by C. Napier Bell (*rev.*), 339.

Digitized by Google

Tatta in Sind, place of the King's sepulchres, 15.
Temple (R. C.), on C. de Cardi's paper, 63; Beginnings of Currency, 99; Burmese Nats, or spirits, 217.
Thana, in the Swat District, 6.
Timur the Tartar devastates W. India, 4.
Tocher (J. F.), elected November, 1899, 225.
Toltecs (= Builders), Originators of Maya Culture, 47.
Tomeros, Hingol River Delta, 11.
Trial by Ordeal in the Ibibeo Tribe, 22.
Troncoso (F. del Paso y), Mexican Manuscripts (*rev.*), 337.
Turcomans confused with Sakas, 20.
Turks inhabiting Makrán, 11.
Twin-children, the Mother to be Killed, 57.
Tylor (E. B.), on Dr. Westermarck's "Arab Ğinn," 251, 269.
Tzapoteco, former inhabitants of Mexico, 29.

U.

Uluga, "pig's nose," a W. African Tribe, 22.
United Kingdom, Report of Committee, Ethnographical Survey, 215.

V.

Van de Poel, his West African masks, 25.
Vinland and its Ruins, by Cornelia Horsford (*rev.*), 334.
Voice of Oro, similar to Australian Bull Roarer, 61.

W.

Wanganui Museum, New Zealand, 4th Annual Report (to 30th June, 1899) (*rev.*), 342.
Waziris, Pathán Tribe of West India, 2.
Westermarck (E.), Nature of the Arab Ğinn, 252.
Williams (J. W.), elected November, 1899, 225.
Wourtsimi, Foretelling Priests or Prophets, 63.

Y.

Yue-chi, a great Indo-Scythic horde, 19.
Yusufzai, Branch of Afghan race, 3.

Z.

Zaaxas Hacienda 2½ miles S.E. from Mitla, 42.
Zain Khan, Kabul tax-collector, 4.
Zakka Khel, a leading Afridi tribe, 7.
Zittel (Carl A. von), Textbook of Palæontology (*rev.*), 331.

Digitized by Google

LONDON:
HARRISON AND SONS, PRINTERS IN ORDINARY TO HER MAJESTY,
ST. MARTIN'S LANE.

Digitized by Google

CONTENTS—*continued.*

	PAGE
The Harmonic Structure of Indian Music. By John Comfort Fillmore	330
Text Book of Palæontology. By Karl A. von Zittel	331
The Cephalic Index. By Dr. Franz Boaz	332
A Study of the Normal Tibia. By Ales Hrdlička	332
On some Flint Implements, found in the Glacial deposits of Cheshire and North Wales. By Joseph Lomas, F.G.S.	333
Explorations in Patagonia. By Dr. F. P. Moreno	334
Vinland and its Ruins. By Cornelia Horsford	334
Hawaii Nei. By Mabel C. Craft	335
A Dictionary of the Pathan Tribes of the North-West Frontier of India	335
On the Orientation of Temples. By F. C. Penrose, M.A., etc.	336
Reproductions of Nahua Manuscripts. By Francisco del Paso y Troncoso	337
Tangweera: Life and Adventures among gentle Savages. By C. Napier Bell, M.Inst.C.E.	339
The Natural History of the Musical Bow. By Henry Balfour, M.A.	340
International Congress of Prehistoric Archæology and Anthropology	342
International Congress on the History of Religion	344
INDEX	345

The Council desire it to be understood that in giving publicity to the Papers read before the Institute, and the discussions thereon, they accept no responsibility for the opinions or statements of individual authors.

Fellows of the Institute are earnestly requested to add copies of any photographs of anthropological interest which they may possess, or be able to obtain, to the collection in the library.

SPECIAL NOTICE.

Through the generosity of Mr. A. Featherman, the Anthropological Institute is enabled to announce for gratuitous distribution a limited number of copies of his book, "Thoughts and Reflections," which contains the results of his anthropological studies, and presents a commentary on the materials embodied in his seven volumes, *The Social History of Mankind*, most of which are now wholly out of print.

These "Thoughts and Reflections" form a demy octavo volume of 352 pages, first published in 1894, and will be sent to any address, carriage forward, on receipt of an application addressed on or before October 1st, 1900, to the

Secretary of the Anthropological Institute,
3, *Hanover Square, London, W.*

In the event of the number of applications exceeding the number of copies which are available for distribution, the Institute reserves to itself the right to determine the mode in which they shall be assigned.

NOTES AND QUERIES ON ANTHROPOLOGY.

The Third Edition, edited for the British Association for the Advancement of Science, by J. G. Garson, M.D., and Charles H. Read, F.S.A. Published by the Anthropological Institute of Great Britain and Ireland, 3, Hanover Square, London, W., price 5*s.* (to Members of the British Association, and Fellows of the Anthropological Institute, on personal application at the Institute, 3*s.* 6*d.*).

Digitized by Google

CONTENTS.

PAGE

MEETING OF NOVEMBER 7th, 1899. C. H. Read, Esq. F.S.A., President, in the Chair - - - - - - - - - - - - 225

Notes on the Ethnology of Tribes met with during Progress of the Juba Expedition of 1897–99. By Lieut.-Colonel J. R. L. Macdonald, R.E. (With Plates XXIX and XXX) - - - - - - - - - 226

Notes on the Masai Section of Lieut.-Colonel Macdonald's Vocabulary. By Mrs. S. L. Hinde - - - - - - - - - 248

Notes on the Swahili Section of Lieut.-Colonel Macdonald's Vocabulary. By Miss M. E. Woodward - - - - - - - - 250

MEETING OF NOVEMBER 21st, 1899. Professor E. B. Tylor, D.C.L., LL.D., F.R.S., in the Chair - - - - - - - - - - 251

The Nature of the Arab *Ginn*, illustrated by the Present Beliefs of the People of Morocco. By Edward Westermarck, Ph.D. - - - 252

MEETING OF DECEMBER 12th, 1899. C. H. Read, Esq., F.S.A., President, in the Chair - - - - - - - - - - - - 270

Primitive Rites of Disposal of the Dead, with Special Reference to India. By W. Crooke, B.A. - - - - - - - - - - - 271

Sequences in Prehistoric Remains. By Professor W. M. Flinders Petrie. (With Plates XXXI to XXXIII) - - - - - - - - 295

On the Discovery of *Neritina Fluviatilis* with a Pleistocene Fauna and Worked Flints in High Terrace Gravels of the Thames Valley. By H. Stopes - - - - - - - - - - - - - - 302

ANTHROPOLOGICAL REVIEWS AND MISCELLANEA—

New Zealand Kotahas or Whip Slings, for Throwing Darts. (With Plate XXXIV) - - - - - - - - - - - - - 304

Note on a Carved Canoe Head from New Zealand. (With Plate XXXV, 1) - - - - - - - - - - - - - - 305

Note on a Stone Battle-axe from New Zealand. (With Plate XXXV, 2) - - - - - - - - - - - - - - - 305

Note on the Roman Origin of a Mediæval Charm - - - - - 306

Prehistoric Chronology. By Professor Oscar Montelius - - - - 308

On the Judicial Oaths used on the Gold Coast - - - - - - 310

Note on the Congress of the German and Viennese Anthropological Societies held at Lindau from the 4th–7th of September, 1899 - 314

The Huxley Memorial Statue in the Natural History Museum - - 316

Science et Foi. L'Anthropologie et la Science Sociale. Par Paul Topinard - - - - - - - - - - - - - - - 317

Mission en Cappadoce 1893–1894. Par Ernest Chantre - - - - - 320

Anthropometria. By Rudolfo Livi - - - - - - - - - - 324

Statistical Methods: With Special Reference to Biological Variation. By C. B. Davenport, Ph.D. - - - - - - - - - - 326

The Oneida Community. By Allan Estlake - - - - - - - 327

Ancient Pagan Tombs and Christian Cemeteries in the Islands of Malta. By Dr. A. A. Caruana - - - - - - - - - - 329

[P.T.O.

HARRISON AND SONS, PRINTERS IN ORDINARY TO HER MAJESTY, ST. MARTIN'S LANE, LONDON.

Digitized by Google

BY-LAWS

OF THE

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND,

DULY CONFIRMED BY THE COUNCIL, AND ORDERED TO BE PRINTED FOR THE INFORMATION OF THE FELLOWS.

13TH MARCH, 1900.

I. THE PRESIDENT. [under Art. 14.

1. The President shall exercise a general supervision over the affairs of the Institute; shall be, when present, Chairman of the Council, and of all meetings of the Fellows and a Member of all Committees; shall execute, and cause to be executed, these By-Laws; shall cause to be summoned extraordinary meetings of the Council, of the Committees, and of the Fellows; and shall propose from time to time, to the Council, such measures as may appear to him conducive to the welfare of the Institute.

2. When prevented from being present at meetings, or from otherwise attending to the current business, he will be expected to give timely notice to the Secretary or to one of the Vice-Presidents.

II. THE TREASURER. [under Art. 14.

1. The Treasurer shall have special charge of all accounts, which shall be kept in proper books to be provided for that purpose; and he shall see to the collecting of all sums of money due to the Institute.

2. He shall not make any payment without the previous consent of the Council; and no drafts on the Institute's bankers shall be paid unless signed by the Treasurer, and by the Chairman of the meeting of the Council at which such consent was given.

3. He shall keep, in concert with the Secretary, a complete list of the Fellows of the Institute, with the name and address of each, accurately set forth; which list, with a statement of the financial position of the Institute, shall be laid on the table at every Ordinary Meeting of the Council.

4. He shall be *ex officio* a member of all Committees.

Digitized by Google

III. THE SECRETARY. [under Art. 14.

1. The Secretary shall conduct the correspondence of the Institute; shall see that the Minute Books are duly posted and kept in proper order, that the notices of all meetings of the Council and of the Institute are issued at the proper times, and that the Rooms and Library are kept in proper order; shall superintend the publications and exercise such other powers as the Council shall delegate to him from time to time; and shall use his best efforts that the resources of the Institute may be readily available both to the Fellows, and to advance the Study of Man.

2. He shall be *ex officio* a member of all Committees appointed by the Council, and secretary of all standing Committees.

3. There shall be an Assistant Secretary who shall be appointed by the Council, on such terms as the Council may from time to time ordain.

4. The Assistant Secretary shall carry on the current work of the office of the Institute, and keep the petty cash account, under the supervision of the Secretary, to whom he shall be primarily responsible; but he shall hold himself in readiness to assist all the officers in the performance of their duties.

IV. THE COUNCIL. [under Art. 16, 19.

1. The Council shall meet in the afternoon of every day on which an Ordinary Meeting of the Institute is to be held; and also not less than a fortnight, or more than a month, before the first ordinary meeting of each session.

2. Notice of every meeting shall be given to every member of the Council not less than three days in advance; and this notice shall specify, in general terms, the business to be transacted.

3. No resolution shall be adopted at any meeting of the Council, except such as may arise out of the business specified in the notice given to every member of the Council; save that in cases of emergency any two members present may move the suspension of this By-Law in order to bring before the Council a matter requiring immediate decision; but the suspension of this By-Law shall require a majority of two-thirds of those present and voting.

4. The Council may delegate any part of its powers to a Standing Committee or Committees, which shall report to the Council at every meeting. In all such Standing Committees not less than one-third of the members shall retire annually, and shall not be eligible for immediate re-election.

5. The Council may also refer particular subjects to Committees which shall report to the Council at or before the ordinary meeting of the Council next before the ensuing General Annual Meeting. In all such Committees the members

Digitized by Google

shall be nominated half by the proposer of the motion to appoint, and half by the Chairman of the meeting at which the Committee is appointed; and all shall be eligible for re-appointment at the discretion of the next incoming Council.

6. The Council may appoint persons not being members of the Council to be Salaried Officers or Servants, to carry on the necessary work of the Institute, and may define the duties to be performed in each case, and may allow to them such salaries, gratuities, and privileges, as may seem proper; and may suspend or discharge any such Officer or Servant from office, whenever there shall seem to be occasion for so doing.

7. The order of business in the Council shall be as follows, unless the Council shall on any occasion order otherwise:—

(*a*) Minutes of the last meeting.
(*b*) Financial business.
(*c*) Elections and nominations.
(*d*) Reports of Standing Committees.
(*e*) Reports of other Committees.
(*f*) Other business specified on the notice of meeting.
(*g*) Emergency business under Rule IV, 3.

V. THE STANDING COMMITTEE. [under By-Law IV, 4.

1. There shall be one Standing Committee, appointed by the Council, which shall be called the Executive Committee.

2. It shall consist of the President, Secretary and Treasurer for the time being, *ex officio*, and *five* Fellows, *one* of whom at least shall be an ordinary member of Council.

3. The business of the Executive Committee shall be as follows:—

(*a*) To consider and report upon any business referred to it by the Council.
(*b*) To examine all papers submitted to the Institute for reading and publication, and to decide, with the aid of referees, whose names shall on each occasion be reported to the Council, whether or no such papers shall be recommended to the Council for reading or publication; in full or in abstract; whether, and to what extent, illustrations are required, and generally to help the Secretary in the production of the Journal and other publications.
(*c*) To consider and recommend to the Council exchanges of publications with other Societies.
(*d*) To act as a Library Committee.

4. The Executive Committee shall meet on the Tuesday next before each meeting of the Council.

5. The Executive Committee shall report its proceedings to each meeting of the Council for confirmation.

Digitized by Google

VI. THE HONORARY MEMBERS. [under Art. 15.

1. Honorary Members may be elected, but not more than three in each year. They shall be nominated at or before the first ordinary meeting of the Council in December, and of this special notice shall be given; and they shall be put up for election at the next ordinary meeting of the Council.

2. Every nomination shall be accompanied by a statement of the qualifications of the nominee.

3. In the nomination and election of Honorary Members, regard shall be had to the representation of countries not already sufficiently represented in the list of Honorary Members.

VII. THE LOCAL CORRESPONDENTS. [under Art. 15.

1. The Council may appoint Local Correspondents in any part of the British Empire, or elsewhere, who may, or may not, be Fellows of the Institute.

2. The appointment of any Local Correspondent shall be revocable at the pleasure of the Council, but shall cease and determine at the expiration of every successive period of four years; the first of such periods to be computed from the General Annual Meeting of 1900, so that the tenure of office of each and all of the Local Correspondents shall expire with the expiration of every such quadrennial period.

3. Every Local Correspondent shall be presented with a diploma of his appointment, signed by the President and Secretary, and specifying the date at which the appointment is to cease and determine.

4. Every Local Correspondent shall be entitled, if not already a Fellow, to receive the *Journal* of the Institute during his term of office.

5. It shall be the duty of every Local Correspondent to communicate from time to time to the Council any matter of Anthropological interest that may come within his knowledge.

6. Every Local Correspondent shall be re-eligible, provided that in the opinion of the Council his services to the Institute, and to Anthropological Science, during his term of office, shall have been sufficient to make his re-election desirable.

VIII. THE HOUSE LIST. [under Art. 17, 22.

1. Seven of the ordinary Members of Council, and one of the elected Vice-Presidents, shall retire from office annually by rotation, and shall not be eligible for re-election to the same office for the space of one year.

Digitized by Google

2. A list of the retiring members shall be laid before the Council at the *first* Ordinary Meeting, in December, when the Council shall receive and consider nominations of Fellows to take the place of these and any other members of Council, or officers, who may retire.

3. Any member of Council may nominate any Fellow of the Institute for any vacancy among the officers and in the Council.

4. When more nominations are made than there are vacancies, the selection shall be by ballot, and shall be made at the next ordinary meeting of the Council.

5. The Secretary shall give notice to every Fellow thus selected for any vacancy and not already a member of the Council; and if such Fellow decline to serve, his place shall be supplied, (a) if the number of nominations shall have been in excess of that of the vacancies, by the Fellow who shall have received in the ballot the next largest number of votes; (b) if otherwise, by a fresh nomination, which shall be made by the Council, and if necessary by ballot as before.

IX. THE GENERAL ANNUAL MEETING. [under Art. 23.

1. The General Annual Meeting shall be held, if practicable, on the fourth Tuesday in January, at 8.30 p.m.

2. Notice of this meeting, together with a printed balloting list of the Officers and Council, shall be sent to every Fellow of the Institute, residing in the United Kingdom, whose address is known; and may be inserted in two or more newspapers, one week at least before the day of Meeting.

3. The following shall be the Agenda for the General Annual Meeting:—

(*a*) The Minutes of the last General Annual Meeting, and of any Special General Meeting which may have been held subsequently.
(*b*) The appointment of Scrutineers, as in § 4 below.
(*c*) The presentation of the Annual Reports of the Council and of the Treasurer.
(*d*) The Presidential Address.
(*e*) The election of Officers and Council for the ensuing year.
(*f*) The installation of the newly elected President.

4. No other business shall be transacted but such as may arise out of the Report of the Council. In the event of any Fellow being desirous of bringing forward a motion on any point not raised in the Report of the Council, such motion shall be handed in to the Chairman in writing, read audibly at the Meeting and referred to a Special General Meeting, which shall meet not more than one calendar month after the General Annual Meeting; provided that the motion to call a Special General Meeting be supported by the major part of the Fellows present at the Annual Meeting.

Digitized by Google

5. The chair shall be taken at the time named in the notice, or as soon after as seven Fellows shall be present; whereupon the Chairman shall at once appoint two or more Scrutineers from among the Fellows present, not being members of Council, and shall declare the ballot open for one hour from the time when the Scrutineers shall have taken their places.

6. Each Fellow present, and voting, shall deliver a balloting list (of which sufficient copies shall be provided), folded up, to one of the Scrutineers, who shall immediately put it into the ballot box, and forthwith strike off the name of that Fellow on a copy of the list of Fellows to be provided by the Secretary.

7. At the close of the ballot the Scrutineers shall report the number of votes given for each person to the Chairman, who shall thereupon declare the persons upon whom the election has fallen.

8. If the name of any person is found to have been simply erased in the majority of balloting papers, without any name being substituted, such person shall not be elected.

X. THE ORDINARY MEETINGS. [under Art. 27.

1. The Ordinary Meetings of the Institute shall be held at 8.30 p.m., on dates which shall be fixed for the ensuing session at the last meeting of the Council in June (when practicable) and a list of these meetings shall be sent to each Fellow at least a fortnight before the beginning of the session.

2. Additional Ordinary Meetings may be convened by the President at any time.

3. A notice of each meeting, specifying as far as possible the subject of the paper or papers to be read and discussed, shall be sent, not less than three days beforehand, to all Fellows resident in the United Kingdom, whose addresses are known.

4. At Ordinary Meetings the order of procedure shall be as follows:—

(*a*) The Minutes of the last Ordinary Meeting shall be read, and if their accuracy be not questioned, signed by the Chairman.

(*b*) Elections of new Fellows, and presentations of books, etc., shall be announced.

(*c*) Papers and communications shall be read and discussed.

(*d*) The date, and so far as possible the subject, of the next meeting shall be announced from the Chair.

XI. THE LIBRARY. [under Art. 8, 22.

1. The Library shall be open for the use of Fellows of the Institute daily, with the exception of Sundays and the holidays hereinafter named, from 11 a.m. to 4 p.m., except that on Saturdays it shall be closed at 1 p.m

Digitized by Google

2. The holidays on which the Library shall be closed shall be the public holidays, together with Good Friday, Easter Eve, Christmas Day, and such part of the months of August and September as shall be determined from time to time by the Council.

3. Every Fellow of the Institute whose subscription shall not be three months in arrear may borrow out of the Library, under the conditions hereinafter stated, any number of printed volumes, not exceeding ten, and may exchange any of the borrowed volumes for others as often as he may please; but so that he shall not have more than ten in his possession at any one time, and shall not retain any book for a longer period than one month, if the same be applied for in the meanwhile by another Fellow; nor in any case for more than six months.

4. Every application by a Fellow for the use or loan of any book or books shall be made in writing, and shall be presented at the Library either by the Fellow himself, or by an authorised agent therein named.

5. Every application, with the title of the book, the name and address of the borrower, and the date of borrowing, shall be entered by the Assistant Secretary in a register which shall be kept in the Library; and likewise the date at which each book is returned.

6. All expenses of packing and transmitting books borrowed from the Library shall be defrayed by the borrower.

7. Every Fellow who shall borrow any book from the Library shall be responsible to the Institute for its safety and good condition from the time of its leaving the Library until its return; and in case of any loss or damage he shall replace the book or make it good, as may be required by the Council.

8. Other persons, not being Fellows of the Institute, may be personally introduced by a Fellow into the Library for purposes of study: or may, on the written recommendation of a Fellow, be provided with a ticket of admission to the Library, which shall specify the name and address of the person so admitted, and shall be renewable for periods of seven days. But any Fellow who shall introduce or recommend any person, shall be responsible to the Institute for any loss or damage which may result from his admission.

9. All persons, whether Fellows or not, who shall make use of the Library, shall on each occasion enter their names, and the date of their visit, in the register which shall be kept for the purpose in the Library.

10. The Secretary shall have general control over the working of the Library, and shall be empowered to confine any book or document to the Library at his discretion, and to make such further regulations as may seem to him from time to time desirable; but shall report all such regulations to the Council at its next meeting for confirmation. [The Regulations at present in force will be found on p. 8.]

Digitized by Google

XII. PAPERS AND COMMUNICATIONS. [under Art. 29.

1. The author of every paper offered to the Institute shall be requested by the Secretary to submit the manuscript in full, together with a brief abstract of its contents.

2. The Secretary shall report the receipt of manuscript and abstract to the next meeting of the Council.

3. The Council shall cause each paper to be submitted to a referee or referees, and on receipt of the report of such referee, the Council shall either accept it and provide for its discussion and publication, or shall direct the Secretary to return it forthwith to the author.

4. The Council may order copies of the abstract of any paper to be distributed to the Press, or to any Fellows who may be present when it is discussed.

XIII. ALTERATION OF BY-LAWS. [under Art. 22.

1. At the first meeting of the Council after the General Annual Meeting in every year, these By-Laws shall be laid on the table and affirmed; but so that, if any alteration is desired, notice of motion to amend may be given at once by any two members of Council, and such motion shall be taken as urgent business at the next meeting of the Council.

2. For the introduction of a motion to amend, at any other time, the leave of a majority of those present, and voting, must be obtained.

3. No change in the By-Laws shall be carried except by a two-thirds majority of those present and voting.

LIBRARY REGULATIONS UNDER BY-LAW XI, 10.

Fellows are responsible for books borrowed, until marked as "Returned" in the Library Register.

No reader or borrower of a book may mark it, or write in it, or lay paper upon the pages for the purpose of copying or tracing in ink. Corrections of errors should be made on a separate sheet, and returned with the book to the Library.

Books taken out by readers must not be returned to the shelves except by the Librarian.

HARRISON AND SONS, PRINTERS IN ORDINARY TO HER MAJESTY, ST. MARTIN'S LANE, LONDON.

Digitized by Google

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.

This Institute was established in 1871 by the amalgamation of the older Anthropological Society and Ethnological Society. It has for its object the promotion of the Science of Mankind—Anthropology—by the accumulation of observations bearing on man's past history and present state in all parts of the globe. It investigates, in a rigorously exact manner, everything that can throw light upon the laws of man's nature: his origin, history, and capabilities of progressive development and civilisation. It studies him structurally and psychologically, under the several types in which he is found in various regions; and comparatively, in relation to the rest of the animal kingdom. The ultimate object of the Institute, therefore, is to build up a Science of Man on a basis of well-ascertained fact, and logically deduced inference. As means to this end, the Council of the Institute has adopted a plan of operations, the principal heads of which are as follow:—

1. Meetings for the reading of papers and for discussion of anthropological questions.
2. The issue of a Journal containing Reports of the Proceedings at the Meetings, with other matters of anthropological interest.
3. The appointment of Local Correspondents in all parts of the world, to collect information, and to aid the Institute in its operations.
4. The maintenance of a library, which contains sets of all the principal Anthropological Journals published in the United Kingdom or elsewhere, besides a large and valuable collection of books of reference, travels and researches, an extensive collection of photographs and lantern slides, and much unpublished material for the use of students of Anthropology. Fellows residing in the country, as well as in London, can borrow books from the library.
5. The appointment of Committees to conduct special investigations, as occasion offers, in the various branches of Anthropology.
6. Co-operation with the British Association for the Advancement of Science and with foreign scientific societies in anthropological investigations; co-operation with individuals and institutions in aid of explorations and in the establishment of local centres of anthropological study; and, generally, the stimulation of individual and local efforts to further the objects of the Institute.

The annual subscription is Two Guineas, which is due on election (unless such election takes place in the month of November or December) and on the 1st of January in each succeeding year. A Member may at any time compound his future subscriptions by the payment of £21.

Persons who wish to become Fellows of the Institute are requested to communicate with the Secretary, 3, Hanover Square, W.

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google